CONSTRUCTION NEWS

Supplement to ENGINEERING NEWS. New York, May 13, 1909.

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CONSTRUCTION NEWS.

Plans and Specifications on File.

(denotes that this work is advertised in Engineering News.)*

The following plans (P.) and Specifications (S.) are on file (for reference only unless otherwise noted) at office of The Engineering News Publishing Co., 220 Broadway, New York.

Bids close.	Work.	See issue.
5-15	Dredging, Vallejo, Cal.......(S.)	4-22
5-15	Hospital bldgs., Wash., D. C.(S.)	4-15
5-18	*Dredging, Milwaukee, Wis..(S.)	4-29
5-18	*Filtration plant, Toronto, Ont. ....(P. & S.)	4-22
5-20	*Intake, etc., Concord, Mass. (P&S)	5- 6
5-22	Dry dock, Hawaii..........(S.)	3-25
5-24	*Undergrade crossings, Louisville & Nashville R. R. ....(P. & S.)	4-29
5-24	*Dredging, Baltimore, Md.....(S.)	4-29
5-24	*Bridge, Newburyport, Mass...(S.)	5- 6
5-26	*Lock, Vicksburg, Miss......(S.)	4- 1
5-27	*Barracks, Ft. Totten, N. Y..(P.)	4-29
5-27	*Dams, etc., Rock Island, Ill..(S.)	4-29
5-31	Theater, etc., Atlanta, Ga.(P.&S.)	5-13
6- 1	*Dredging, Baltimore, Md....(S.)	5- 6
6- 1	*Pipe and specials, Philippines. ....(P. & S.)	3-25
6- 2	*Pipe, Springfield, Mass......(S.)	5- 7
6- 5	Coal-conveyor system, Key West, Fla. ....(S.)	5- 6
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List of Contracts Pending.

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5-26	Power plant, New York	5- 6
5-26	*Heating, Madison Barracks, N.Y.	5- 6
5-31	Elec. equip., Schuylkill Haven, Pa.	5-13
6- 1	Lighting, Bridgeport, Ohio......	4-22
7- 1	*Lighting, Boston, Mass.	5- 6
6- 8	Lighting, Vincennes, Ind.........	5-13

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5-17	Bridge, Mansfield, Ohio	5- 6
5-17	Bridge, Morristown, N. J.	5- 6
5-18	Bridge, Lima, Ohio..............	5-13
5-18	Bridge, McNab, Ont..............	5-13
5-20	Bridges, Mitchell, S. Dak.	5- 6
5-20	Bridge, Massillon, Ohio.........	5- 6
5-21	*Superstructures, Gaspe, Que	4-22
5-21	Culverts, Minot, N. Dak.........	5-13
5-22	*Widening bridge, Washington, D. C.	5-13
5-24	*Bridge, Newburyport, Mass......	5- 6
5-25	Bridges, Connersville, Ind.......	5-13
5-27	Superstructure work, Hokendauqua, Pa.	5-13
5-29	Bridge, Franklin, Pa............	5-13
5-29	Bridge, Ellerton, Ohio..........	5-13
5-31	Bridge work, Ottawa, Ont........	5-13
6- 1	Bridges, Toronto, Ont...........	5-13
6- 4	Superstructure, Toledo, Ohio.....	5-13
6- 5	Bridge work, Cleveland, Ohio....	5-13
6- 9	*Bridges, etc., Philadelphia, Pa..	5-13
7- 1	Bridge, Toledo, Ohio............	4-29

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5-14	Buildings, St. Paul, Minn.	5- 6
5-15	Building, Northfield, Vt.........	4-29
5-15	*Bldg. materials, West Point, N.Y.	4-15
5-15	Naval hospital, Wash., D. C....	4-15
5-17	School, Cincinnati, Ohio.........	4-29
5-17	Hospital, Philadelphia, Pa.......	5-13
5-17	Schools, New York..............	5-13
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5-20	Municipal bldg. foundations, New York	5-13
5-20	Post-office, Shenandoah, Ia......	4-22
5-20	Cottages, Indianapolis, Ind......	5- 6
5-22	Building, East Lansing, Mich....	4-29
5-24	*Post-office, Eureka, Cal.........	4-22
5-24	Building, Boston, Mass..........	5- 6
5-24	Schools, New York..............	5-13
5-24	Engine house, New York........	5-13
5-25	Sanitarium, Winnipeg, Man......	5-13
5-26	*Barracks, Columbus Barracks, O.	5- 6
5-27	*Doors, Fort Monroe, Va.........	4-29
5-27	*Barracks, Fort Totten, N. Y....	4-29
5-27	P. O. foundations, etc., New York	5-13
5-28	School, Cleveland Heights, O..	5-.6
5-29	*Post-office, San Angelo, Tex....	4-29
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5-31	Buildings, Victoria, B. C........	5-13
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6- 3	*Quarters, Ft. Andrews, Mass...	5- 6
6- 7	*Post-office, etc., Fernandina, Fla.	5- 6
6- 7	Quarters, Ft. H. G. Wright, N. Y.	5-13
6- 9	Post-office, Clifton Forge, Va....	5-13
6-10	*Quarters, etc., Fort Sill, Okla....	5-13
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6-15	Post-office, Mayfield, Ky.........	5-13
6-15	School, Montgomery, Ala........	5-13

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5-15	Water mains, etc., Miamisburg, Ohio	5-13
5-15	Water-works, Muncie, Ind.	5- 6
5-17	*Pumps, etc., New York.........	4-29
5-17	Engines, etc., Yonkers, N. Y....	5-13
5-17	Reservoir, Albion, Mich..........	5-13
5-17	Pipe line, etc., Lamar, Colo......	5-13
5-18	Filtration plant, Toronto, Ont...	4-29
5-19	Water-works, Estevan, Sask....	4-29
5-19	Water mains, New York.........	5-13
5-21	Water mains, State Center, Iowa.	5-13
5-20	*Filtration plant, Bowling Green, Ky.	5- 6
5-20	*Reservoir dam, Glens Falls, N.Y.	5- 6
5-20	*Intake, etc., Concord, Mass.....	5- 6
5-22	*Filter mach., Toledo, Ohio.....	4-29
5-24	*Intake pipe, etc., Chester, Pa..	5- 6
5-24	*Water extens'ns, McAlester, Okla.	5- 6
5-24	*Pipe, East Orange, N. J........	5-13
5-25	Steam main, Massillon, Ohio.....	5-13
5-25	Water-works, Halstead, Kan....	5-13
5-25	*Filter sand, Reading, Pa........	5-13
5-27	Pumping stations, etc., Chicago, Ill	5-13
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6- 1	Water bonds, Parkersburg, W. Va.	5-13
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6- 1	Water-works, sale, Lawrenceville, Va....................	4-29
6- 1	*Pipe and specials, Philippines (U. S. Poss.)	3-25
6- 2	*Pipe, Springfield, Mass.........	5- 6
6- 2	Water piping, Vancouver, B. C...	5-13
6- 4	*Cisterns, Fort Morgan, Ala......	5-13
6- 8	Boiler, National Soldiers' Home, Va.	5-13
6- 9	Hydrants, San Francisco, Cal...	4-29
6-14	*Pumps, etc., Peterborough, Ont..	5-13
6-14	Canal, etc., Porto Rico (U. S. Possess.)	5-13
7- 1	*Valves, hydrants, Manila.......	5- 6

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5-15	Sewers, Oshkosh, Wis...........	5-13
5-17	Sewer, New Haven, Conn........	5-13
5-17	Sewers, Clear Lake, Iowa........	5-13
5-17	Sewer system, Basin, Wyo......	4-29
5-18	*Sewer, Syracuse, N. Y.	4-15
5-18	Sewer, New York................	5-13
5-18	Sewers, Van Wert, Ohio..........	5-13
5-18	Sewer, Provo, Utah	5-13
5-18	Disposal plant, St. Thomas, Ont.	5-13
5-19	Sewers, etc., Brooklyn, N. Y. ..	5- 6
5-21	*Sewers, Louisville, Ky.........	4-29
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5-22	Disposal plant, Oberlin, Ohio....	5-13
5-24	Sewer, Las Animas, Colo.........	5-13
5-24	Sewer system, Carlsbad, N. Mex..	5-13
5-24	Sewers, Yorktown, Sask..........	5-13
5-26	Sewers, Richmond, Ind...........	5-13
5-28	*Sewer outlet, Fort Hancock, N. J.	5-13
5-28	Sewer, Seattle, Wash............	5-13
5-28	*Sewer, Louisville, Ky...........	5-13
6- 1	*Purification works, Indiana, Pa.	5-13
6- 1	Sewer system, Marietta, Ga......	5-13
6- 1	Sewers, Clearwater, Fla.........	5-13
6- 9	*Sewer, Toronto, Ont............	5- 6
6-10	Sewers, Albert Lea, Minn........	5-13

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5-15	Sidewalk, etc., St. Charles, Mo..	5- 6
5-15	Road, Marion, Ind.	5- 6
5-15	Grading, etc., Breckenridge, Minn.	5- 6
5-15	*Pavement, etc., Wash., D. C.	5- 6
5-15	Sidewalk, St. Charles, Mo........	5-13
5-17	Street impvt., Albany, N. Y......	5-13
5-17	Macadam, Girard, Ohio...........	5-13
5-17	Paving, Sandusky, Ohio..........	5-13
5-17	Sidewalk, North Milwaukee, Wis.	5-13
5-17	Grading, etc., Bowling Green, O..	4-29
5-17	*Grading, etc., Fort Monroe, Va..	4-22
5-17	Road, Greencastle, Ind...........	4-22
5-17	Regulating, etc., New York	5- 6
5-17	Road repair, Toledo, Ohio......	5 -6
5-17	Paving, Bramwell, W. Va.	5- 6
5-17	Street impvt., Roanoke, Va.	5- 6
5-18	Pavement, Menasha, Wis.	5- 6
5-18	Road, Fort McKinley, Me.........	5-13
5-18	Paving, Camden, N. J............	5-13
5-18	Paving, Circleville, Ohio.........	5-13
5-18	Paving, etc., Marietta, Ohio.....	5-13
5-18	Grading, Columbus, Ohio.........	5-13
5-18	*Street impvt., Bayonne, N. J....	5-13
5-20	Pavement repair, Brooklyn, N. Y.	5-13
5-20	*Pavements, etc., Winnipeg, Man.	4-29
5-20	Street impvt., Rainier, Ore....	5- 6
5-20	Macadam, etc., Lakemills, Wis..	5- 6
5-20	Stone, Wilmington, N. C.	5- 6
5-21	Grading, Mount Gilead, Ohio....	4-29
5-21	Road impvt., Cleveland, Ohio....	5-13
5-22	Grading, etc., Westerville, Ohio.	5- 6
5-24	Grading, etc., Cleveland, Ohio....	5-13
5-24	Regulating, etc., Long Island City, N. Y.	5-13
5-25	Road, Rushville, Ind.	5- 6
5-25	*Pavement, McAlester, Okla......	5- 6
5-25	*Paving, etc., Clairsville, Ohio....	5- 6
5-26	Regulating, etc., Brooklyn, N. Y..	5-13
5-27	*Curbing, etc., Washington, D. C.	5-13
5-27	*Grading, etc., Scottdale, Pa......	5-13
5-27	Paving, etc., New York..........	5-13
5-28	Grading, etc., Fort Monroe, Va..	5-13
5-28	Avenue extension, Cincinnati, Ohio	5-13
6- 1	Curb, etc., Jackson, Tenn.......	5-13
6- 1	*Grading, etc., Pensacola, Fla. ..	5- 6
6- 7	Road, Brookville, Ind............	5-13
6- 7	Road, Vernon, Ind...............	5-13
6- 7	Road, Liberty, Ind..............	5-13
6- 8	Road, Vincennes, Ind............	5-13

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5-14	*Cement, Wheeling, W. Va.......	4-15
5-15	Dredging, Vallejo, Cal..........	4-22
5-15	Ditch, etc., Shelbyville, Ind......	5- 6
5-15	Trolley repairs, Yonkers, N. Y. (Elec. Rys.)	5-13
5-17	Supplies, Panama	5- 6
5-17	*Embankment, Greenville, Miss..	5- 6
5-17	Riprap jetties, Washington, D. C.	5- 6
5-17	*Purchase of gas tar, Richmond, Va.	4-22
5-17	*Raising jetties, Jacksonville, Fla.	4-22
5-17	Floating baths, New York.......	5-13
5-18	*Dredging, Milwaukee, Wis......	4-29
5-20	*Railway, Shannon Arizona R. R.	4-29
5-20	*Wire fence, Missoula, Mont......	4-22
5-21	Piers, Brooklyn, N. Y...........	5-13
5-22	Earth, Washington, D. C........	5-13
5-22	Dry dock, Hawaii (U. S. Poss.).	3-25
5-24	*Dredging, Baltimore, Md.........	4-29
5-24	*Undergrade crossings, Louisville & Nashville R. R.	4-29
5-24	*Supplies, Panama	5- 6
5-24	*Dredging, Kenton, Ohio.........	5- 6
5-26	*Lock, Vicksburg, Miss..........	4- 1
5-26	*Signals, towers, etc., Phila., Pa.	4-22
5-27	*Dams, etc., Rock Island, Ill.....	4-29
5-27	*Rubble stone, etc., New York....	5- 6
5-27	Drain, Ft. Wayne, Ind	5-13
5-27	Fences, New York	5-13
5-28	*Light-house, Cleveland, Ohio....	5- 6
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6- 1	*Towboat, New Orleans, La......	5- 6
6- 1	*Dredging, Baltimore, Md........	4-29
6- 4	Dredging, Los Angeles, Cal.....	5-13
6- 5	Coal-conveyor system, Key West, Fla.	5- 6
6- 1	*Dredging, Baltimore, Md........	5- 6
6- 7	*Stone, etc., Superior, Wis.......	5-13
6- 8	*Abutment, piers, etc., Wheeling, W. Va	5-13
6- 8	*Riprap, Ashland, Wis..........	5-13
6- 9	Air compressor, Atlanta, Ga.....	5-13
6-12	*Jetty, Galveston, Tex...........	5-13
6-14	*Canal, Porto Rico (U. S. Poss.)..	5- 6
6-19	Dikes, Vallejo, Cal..............	5-13
6-28	*Causeway, Galveston, Tex.......	5- 6

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5-24	Draftsmen, Chicago, Ill.........	4-22
5-24	Draftsmen, Mare Island, Cal....	4-22
5-24	Draftsmen, Puget Sound, Wash..	4-22

RAILWAYS.

(denotes that this work is advertised in Engineering News.)*

AMARILLO, STRATFORD & NORTHERN.—This company has been organized in Texas to build a railway north and south through Sherman, Moore and Potter Counties, thence to a point either in Kansas or Colorado. The line may be in operation from Stratford to Amarillo, or from Stratford to Canyon City within two years. E. C. Gordon and the Stratford Commercial Club are interested.

BOSTON & ALBANY.—Company has petitioned the Massachusetts State Board of Railroad Commissioners to be allowed to issue 25-year bonds at 4% to the amount of $4,500,000, for improvements. The largest item of expenditure is for East Boston, where $2,622,193 will be devoted to pier improvements and grain elevators. Other items are: Enlarging Beacon Park freight yard, $440,000; enlarging East Boston freight yard, $35,000; enlarging West Springfield freight yard, $160,000; enlarging Riverside yard, $12,000; new sidings, $45,000; interlocking signal system, 271,425; telephone system for train dispatching, $40,000; work necessary to widen distance between tracks, $50,000; additional station tracks to clear switching operations, $75,000; new enginal terminal layouts in Boston, East Boston and South Framingham, $155,000; Chelsea freight facilities, $25,000; rebuilding bridge in Chelsea, $6,000; abolition of Somerville Ave. crossing in Somerville, $12,500.

BUFFALO, ROCHESTER & PITTSBURGH.—E. F. Robinson, Rochester, N. Y., Ch. Engr. of the Buffalo Rochester & Pittsburgh Ry. Co., is reported to have announced that bids have been invited for the revision of about two miles of line on the Clearfield and Mahoning branch. This work is to be started immediately and will cost about $50,000. In addition to this work, the company has ordered material to be used in rebuilding about 15 bridges on that system. Appropriations for improvements on that road so far this year exceed the total expenditures of 1908.

CANADA.—Approximately $85,000,000 will be spent by railroads in actual construction in western Canada during 1909, according to various press reports. "The construction campaign laid out by the Canadian Pacific is the most costly and calls for the expenditure of over $20,000,000. James J. Hill will spend $15,000,000 on the Great Northern and subsidiary companies in western Canada, together making a fourth trunk system across the prairies westward from Winnipeg. The Canadian Northern intends to spend some $11,000,000, part of which will be for the extension of its main line toward the Pacific coast. A like amount will be spent by the Grand Trunk Pacific on its main line between Winnipeg and the Pacific coast, but the bulk of the money used by this company during 1909 will be on its branch lines. This year Milville, Saskatchewan, the headquarters of the Grand Trunk Pacific in Western Canada, appears to be the most favored town, for the company has announced that at least three branches will be built from there this year. One will run northwesterly to Prince Albert, another northeasterly to the Hudson's Bay, while a third will run to the American boundary passing through Regina en route. These three lines will be the most important ever built in western Canada, as far as American farmers and home-seekers are concerned, for they will give direct access to the rich mineral regions and famous Peace River Valley, north of Prince Albert, while the other northerly line will give direct communication to Hudson's Bay and the short wheat route to Europe. The remainder of the $85,000,000 will easily be expended by the almost innumerable companies chartered to build lines in all directions, covering western Canada with a net-work of railroads like a spider's web."

CENTRAL ONTARIO RY.—The Ontario Government has granted a subsidy of $3,000 per mile for a 15-mile line to be built by this company. J. D. Evans is Ch. Engr., Trenton, Ont.

ENID, OCHILTREE & WESTERN.—Grading contract has been let to A. KEY, of Fort Worth, Tex., and several miles have already been graded out of Dalhart. The proposed route is from Dalhart southeast to Dumas, thence northeasterly via Hansford to Ochiltree, 112 miles. Finances have been arranged for construction of this railway and arrangements made to extend the line to the eastern boundary of Texas and to organize an auxiliary company in Oklahoma. G. M. Perry is Pres.; A. E. Wiest, Jr., Vice-Pres. and Gen. Mgr.; H. Palmer, Asst. Secy., all of Ochiltree, Tex.; and W. R. Allen, Ch. Engr., Dalhart, Tex. Noted on March 25.

GULF, TEXAS & WESTERN.—A contract has been awarded for the second 20 miles of construction to D. J. GRIGSBY, Dallas, Tex., who has the contract to build the first 20 miles of line, which extends from Jacksboro, Tex., northwest. John T. Witt, of Jacksboro, is Ch. Engr. Fully noted on March 4.

LONG ISLAND R. R.—The construction work which is now in progress is largely the culmination of an extensive series of improvements undertaken a few years ago for the development of Long Island, and to make the Long Island R. R. an integral part of the Pennsylvania R. R. System upon the completion of that company's New York City improvements. This series of improvements, which have now been completed, may be briefly described as follows:

The Atlantic Ave. improvement, which eliminated all grade crossings from the old City Line in Brooklyn to Flatbush and Atlantic Aves., thus removing steam-operated passenger trains from the surface of Atlantic Ave., providing a sub-surface and terminal station at Flatbush Ave., where a connection is had with the Interborough Subway.

The establishment, in connection with the Atlantic Ave. Improvement, or depressed freight yards between Vanderbilt and Fifth Aves., Atlantic Ave. and Pacific St., Brooklyn; the completion of an elevated merchandise freight terminal where less-than-carload freight can be handled independent of carload freight, the depressed freight yards named taking care of the carload freight, and the two together giving a car capacity of over four hundred cars.

The establishment of large freight yards at Bushwick, Bushwick Junction, East New York, Rockaway Ave., Vanderveer Park, Paerdegat Basin, Parkville, New Utrecht and Bay Ridge. All of these yards being located in the City of Brooklyn, providing team track delivery at the points named, thus distributing the freight traffic for the City of Brooklyn.

The electrification of over 100 miles of running track, thus making it possible to operate electric trains by third-rail between Brooklyn and the Rockaways, Jamaica and Hempstead, and connecting the electric trains at Jamaica with the steam trains for all parts of the island. This has resulted in cutting down the time consumed between Jamaica and the places of business in New York by 40 minutes, or 20 minutes each way, per day.

The Bay Ridge Improvement, not yet completed, which is carried on under the same plan as the Atlantic Ave. work was, and which when finished will have cost several million dollars.

The building of additional running tracks between Valley Stream and Far Rockaway, Jamaica, and Long Island City, Jamaica and Floral Park, Mineola and Oyster Bay, Babylon and Oakdale, Woodhaven Junction and Aqueduct, and Woodhaven Junction and Chestnut St., Atlantic Division.

In addition to the improvements enumerated above, the company has built new passenger stations at about 20 places and new freight stations and freight yards at some 25 places. New docks and wharves have been built at Long Island City, and the ferry slips at 34th St., Manhattan, have been rebuilt with modern bridges. One hundred pound rails have been substituted for seventy and eighty-pound rails on 50 miles of the road, and automatic electric signals have been installed on 60 miles of the line. The capacity of the freight yards at Long Island City and Jamaica has been increased. To facili-

tate the movement of trains and provide improved service, additions to equipment have been provided consisting of 75 locomotives, 200 passenger cars, 400 freight cars, three ferry boats, four tugboats and five car floats. The improvements, together with others of a minor character, represent an outlay upon the part of the Long Island R. R. Co. of more than $20,000,000. It is expected that Long Island trains will be running through the Pennsylvania tunnels to the New York station early in 1910. (See item in issue of April 29.)

MANISTEE & NORTHEASTERN.—J. J. Hubbell, Ch. Engr., Manistee, Mich. advises us that an extension will be built from Buckley to point five miles east of Spencer, Mich., a distance of 36 miles. Surveys have been made and capital obtained. Right-of-way is mostly secured. Edward Buckley is Pres., Manistee. Noted on April 22 as "Michigan & Northeastern."

MINNEAPOLIS & ST. LOUIS.—An extension will be built from Le Beau, S. Dak., to a point in Butte County. The Missouri River will be spanned with a temporary bridge, which will be followed by a modern steel structure to cost about $3,000,000. The new extension will cross Dewey and Schnesse Counties. M. B. Cutter, Gen. Mgr.; R. G. Keneley, Ch. Engr., of Minneapolis, Minn., and E. D. Cloan, in charge of the engineering corps, have just returned from an automobile trip across the reservation country. The surveying corps will be placed in the field at once and the work of construction will follow as early as possible.

NEW YORK CENTRAL & HUDSON RIVER.—The directors at their last meeting authorized improvements and equipment, the total cost of which is estimated at $5,700,000; and the directors of the Lake Shore & Michigan Southern, at a meeting on the same day, authorized an appropriation of $5,500,000 for additional improvements and equipment. The work to be done in New York State includes the completion of the double-tracking of the West Shore, the cutting down of grades at Batavia, and the completion of the new interchange yard at Gardenville, near Buffalo, some work on which was done two years ago. This yard is to handle interchange traffic between the West Shore and the Lake Shore. This addition to the facilities of the Central lines in the Buffalo district, taken in conjunction with the cutting down of the Batavia grade of the West Shore, will add materially to the efficiency of the western end of the West Shore Road. The Lake Shore & Michigan Southern will add third and fourth tracks at points where the traffic demands increases over the road's existing facilities.

NORTHERN PACIFIC.—PORTER BROS. & WELCH, of Spokane, Wash., have been awarded a contract for the construction of 170 miles of railway to be built by the Northern Pacific as a feeder line south from Mandan, N. Dak., following the course of the Missouri River to the Standing Rock Indian reservation. Press reports state that contracts have also been awarded as follows: To PETER SIMS & CO., St. Paul, Minn., for two extensions, one going 80 miles north of Mandan, N. Dak., and the other 80 miles south of the same city. About 9,000,000 cu. yds. of earth will be excavated. To E. A. WICKHAM, of Council Bluffs, Iowa, for construction of 40 miles of road between Cannonball and Mandan.

*PHILADELPHIA & READING.—See under Bridges.

PINE BLUFF & SOUTHWESTERN.—Chartered in Arkansas to build a line from a point five miles west of Georgetown, on the Missouri & North Arkansas R. R., through Jefferson, Lonoke, Prairie and White Counties, 65 miles. Capital, $1,600,000, of which $130,000 has been subscribed. The incorporators are P. P. Byrd, S. C. Alexander, J. F. Rutherford, W. H. Westbrook, D. C. Bell, Fred Fox, Edgar Brewster and J. H. Walker, all of Pine Bluff, Ark.

RUSTIN R. R.—Company has been chartered in Virginia to build a line six miles long in Pulaski County. John B. Newton is Pres., at Roanoke; H. K. McHarg, Jr., Vice-Pres., at Radford, Va.; J. W. Cure, Secy. and Treas., at Roanoke. The others interested are W. H. Kinsley, W. B. Bowles and E. R. Evans, also of Roanoke.

SACRAMENTO & SIERRA.—Incorporated to construct a railway from Sacramento, Cal., to Lake Tahoe via Orangeville, Georgetown and Jackson Springs, 126½ miles. Right-of-way has been secured and the surveys are completed. Capital stock, $1,000,000, of which 129,500 is subscribed as follows: Charles A. Smith, Minneapolis, $79,500; Frederick A. Warner, Naugastuck Conn., $10,000; Frederick H. Pierce, Harry Thorp and Arthur E. Miller, of Sacramento, $10,000 each, and Thos. Stevenson, of Greenwood, El Dorado County, Cal., $10,000. B. F. Hulings, Sacramento, local representative.

SOUTH BRUNSWICK.—Company has been chartered in Virginia with $55,000 capital, to build from a point on the Southern Ry., east of Lawrenceville, in Brunswick County, Va., south to a point on the Seaboard Air Line, near Garysburg, N. C., about 25 miles. P. D. Camp is Pres., and J. C. Williams, Gen. Supt., Franklin, Va.

WATER VALLEY & SOUTHEASTERN.—Company has been incorporated in Mississippi to build a line from Water Valley to Eupora, Miss., about 60 miles. J. D. Peacock, Walter C. Blount and J. R. Cahill, of Water Valley, and others are the organizers.

ELECTRIC RAILWAYS.

BANGOR, ME.—A preliminary survey has been ordered by the Bangor Railway & Electric Co. for an extension to the Charleston division of the lines running from Bangor, which will eventually reach Waterville, 52 miles west of this city, according to the Boston "Transcript." The extension will begin at East Corinth and will run to Dexter, thence through the towns of St. Albans, Hartland and Canaan, skirting Moose Pond, to Skowhegan; thence over the rails of the Somerset Traction Co., if it can be purchased, or, if not, by independent line, to Waterville. This proposed road will link Bangor, by trunk line, to the westward. In connection with the new road a branch line from Dexter north to Dover and Foxcroft is contemplated. John R. Graham is Pres. and Gen. Mgr.

YONKERS, N. Y.—Bids are asked by the Yonkers R. R. Co. until 10 a. m., May 15, for the reconstruction and repairs of certain trolley lines in the City of Yonkers, including macadam, block, asphalt and brick paving. Specifications are on file in the office of John F. Fairchild, C. E., Engineer to Receiver, Engineering Building, Mount Vernon, N. Y. Leslie Sutherland, Receiver.

NEW YORK, N. Y.—On May 7 the Board of Estimate granted a franchise to the South Shore Traction Co. to construct and operate a trolley line over the Queensboro bridge along Division Ave. and Hoffman Boulevard, and through the former village of Jamaica to the dividing line of the counties of Queens and Nassau. Noted on Feb. 11.

The Public Service Commission, First District, on May 4, approved of the granting of a franchise to the Hudson & Manhattan R. R. Co. for the desired extension of the McAdoo tunnel system from 33d St. and Sixth Ave. to the Grand Central Station. The chairman and secretary of the commission were authorized to execute the franchise contract with the company. It will then go to the Board of Estimate and Apportionment for concurrence. The franchise contract as drawn up by the commission provides for stations at Sixth Ave. and 38th St. and at Fifth Ave. and 42d St., with the terminal station in 42d St., between Madison and Lexington Aves. The company is required to accept the contract within three months and to begin construction within six months after it shall have obtained all necessary consents and to complete the construction work within three years. Estimated cost is placed at from $5,000,0000 to $6,000,000. Wm. G. McAdoo is Pres., and Chas. M. Jacobs is Ch. Engr., 30 Church St.

MILTON, PA.—The Montandon & Milton Ry. Co. has been chartered to build a 9-mile railway from a point in West Chillisquaque Township to Milton, via Montandon and Chillisquaque. Capital stock, $54,000. W. H. Lyons, Sunbury, Pres.; Directors: Boyd A. Musser, J. C. H. Newcomer, C. M. Clement and Guy Webster. See Lewisburg, Pa.

SLIPPERY ROCK, PA.—Contracts for construction of the Slippery Rock & Grove City Elec. Ry. will be let in July. The line will connect Slippery Rock and Grove City, nine miles. Capital, $200,000. J. P. Barr, Grove City, is Pres.; James A. Joliffe, Slippery Rock, Secy.; J. H. Pizor, Slippery Rock, Treas.; S. L. McClure, Grove City, Purchas. Agt. and Gen. Mgr. Noted on April 15 under Grove City.

LEWISBURG, PA.—The Sunbury, Lewisburg & Milton Electric Ry. Co. has been chartered to build a 10-mile electric railway from a point in Monroe Township to Lewisburg via Winfield. Capital stock, $60,000. W. H. Lyons, Sunbury, is Pres.; Directors: Boyd A. Musser, J. C. H. Newcomer, C. M. Clement and Guy Webster. See Milton, Pa.

WASHINGTON, PA.—Application will be made on May 17 for a charter for the Washington & Marianna St. Ry. Co., which proposes to build a street railway from Washington to South Strabane Township. Applicants for the proposed charter are: C. B. Coldwell, J. W. McKay, M. J. Hosack, E. B. Hartman, Jr., and Roger Knox, of Washington.

PIQUA, OHIO.—The Piqua Business Men's Association is interested in project to build an electric railway between Piqua and Urbana, via Fletcher, Lena, Conover and St. Paris.

WARSAW, IND.—The City Council has granted J. A. Barry, representing the Wabash & Northern Traction Co., a franchise to construct an electric railway in Warsaw.

CHICAGO, ILL.—Unification of the various elevated railroads in this city has taken definite form. Plans have been worked out and submitted to the executive committees of three of the lines. Briefly, the plan is to form a corporation to be known as the Central Terminal Company, which will purchase outright the elevated loop and in addition shall have a paid-in capital of $4,000,000 to guarantee the payment of rentals. The terminal company will lease and operate the various lines and maintain them at the standard agreed upon when it takes them over. The various roads will be required to put their lines in good condition before turning them over to the holding company, it being agreed that the Oak Park line shall first elevate its tracks through Austin. The committee in charge is composed of Ira M. Cobe, Emile K. Boisot and Samuel Insull.

The biggest traction improvement yet undertaken in the heart of the city is about to be authorized by the Board of Supervising Engineers, according to the Chicago "Post" Track reconstruction in practically every downtown street is to be begun by the two companies, and officials declare that the construction forces will be at work day and night during the next few months until the rehabilitation is complete. State and Clark Sts. are to be relaid by the City Railway Co. J. Z. Murphy is Ch. Engr. of the Chicago Railways Co., 444 North Clark St.

EAST ST. LOUIS, ILL.—The St. Louis & Chester Ry. Co. has been incorporated to build an electric railway from East St. Louis to Chester, passing through the counties of St. Clair, Monroe and Randolph. Principal office, East St. Louis. Capital stock, $100,000. Incorporators are Rudolph Stecher, of Murphysboro; Eugene W. Ziegenhein and Richard A. Stack, of East St. Louis; Edward Schiwitz and William F. Bentzen, of St. Louis, Mo.

The East St. Louis, Columbia & Waterloo Ry. Co. will be ready soon to begin construction work on its proposed 23-mile electric railway which is to connect East St. Louis, Dupo, Bixley, Columbia and Waterloo. Falling Springs, an amusement resort, will be reached by the line. It is proposed to furnish power for lighting. Capital stock authorized and issued, $10,000. H. Reichenbach, Columbia, Ill., Secy.-Treas. Baxter Brown, 610 Laclede Bldg., St. Louis, Mo., is Ch. Engr. Officially noted on March 25.

RIPON, WIS.—W. R. Lyle and W. H. Englebright, of Ripon, are organizing a corporation, to be capitalized at $50,000, to construct and operate an interurban railway line between Ripon and Green Lake, Wis., about 7½ miles. Gasoline motor cars will be used.

EAU CLAIRE, WIS.—C. S. Stockwell, of Neillsville, Wis., is making survey for the Chippewa Valley Ry., Light & Power Co.'s extension between Eau Claire and Altoona. Geo. B. Wheeler, Eau Claire, is Gen. Mgr.

JANESVILLE, WIS.—The Janesville Common Council has granted a franchise to the Cincinnati Construction Co. for laying tracks for urban and interurban electric trains on the streets of Janesville. The company proposes to build a line from Janesville to Madison and has obtained franchises in Edgerton and Stoughton. The matter will go before the Wisconsin Railway Commission under the terms of the Public Utilities law. Construction work will be started at Madison.

CRESTON, IOWA.—The City Council has granted to the Des Moines, Winterset & Creston Electric Ry. Co. a year's extension of its franchise. The proposed railway will extend from Des Moines to Winterset, Macksburg and Creston, a distance of 60 miles. Previously noted.

KANSAS CITY, MO.—We are officially informed that the Interstate Railway Co., a Missouri corporation organized for the purpose of building an electric interurban railway between Kansas City and St. Joseph, Mo., has secured from the property owners about 80% of the right-of-way between these points, and has begun condemnation proceedings in Circuit Courts of the Counties of Platte and Buchanan, in order to protect its right-of-way not already contracted for, and is preparing to begin construction of its electric railway between the above points. S. P. Martin is Secy., 735 N. Y. Life Bldg., Kansas City, Mo.

STAMFORD, TEX.—We are officially informed that a company has been organized to build a street railway in the city of Stamford. Local capital is financing the proposition. Work will probably start in the early summer. L. M. MacArthur, City Engr. of Stamford, is Ch. Engr. of the Stamford Street Ry. Co.

PORTLAND, ORE.—Construction work probably will be started in July by the Portland, Baker City & Butte R. R. Co. The line will start from Portland and cross the Warm Spring Indian reservation in Central Oregon to Baker City, thence to Butte, Mont., a distance of 600 miles. Permission to survey across the reservation has been obtained from the Department of the Interior, and the survey will be immediately started. The company has also secured terminal facilities and right-of-way. Noted last week.

EUGENE, ORE.—Surveys are being made by the Eugene & Pacific Elec. Ry. Co. for its proposed electric railway from Eugene to Florence. All the stock in the Eugene & Pacific Ry. Co. is owned by the Lane County Asset Co. Capital stock authorized, $3,000,000. Frank E. Dunn is Pres.; F. J. Berger, Vice-Pres.; J. W. Zimmerman, Secy.; Alton Hampton, Treas. Lohman & Co., San Francisco, Cal., are the Engrs. Noted on March 25.

LOS ANGELES, CAL.—The Pacific Electric Ry. Co. will construct at once a line between Huntington Beach and Delhi, a distance of ten miles. S. E. TALBERT, of the town of Talbert, and the ROBERT SHERER CO., of Los Angeles, will do the grading.

SAN DIEGO, CAL.—The San Diego & El Cajon Valley Interurban Ry. Co. has completed preliminary surveys for this proposed electric railway from La Mesa to Lakeside. 15 miles. Practically all of the field work has been completed and portions of the right-of-way have been secured.

WELLANDPORT, ONT.—Contracts will be let soon by the Dunnville, Wellandport & Beamsville Electric Ry. Co., which proposes to build a 22-mile electric railway to connect the three cities in the title. It is proposed to begin work at once. Three or four small bridges will be built, the largest to span the Chippewa Creek, and one over the Twenty River. James A. Ross, Wellandport, is Pres. Noted on Feb. 11.

LIGHT AND POWER PLANTS.

(denotes that this work is advertised in Engineering News.)*

BUFFALO, N. Y.—Bids for the construction of the proposed electric lighting plant at city hall, which is estimated to cost about $25,000, were received on May 1 by the Board of Trustees. The lowest bidders on the various items will be announced next week. The bids received are as follows:

Electric wiring—McCarthy Bros. & Ford, 41 East Eagle St., Buffalo, $23,280; F. P. Little & Co., $24,350; J. C. Stearns Electric Co., $31,000; Walter Reiman, $28,743; Sackett Electric Construction Co., $29,722.

Manufacture of concrete as per specifications—General Electric Co., $4,110; Allis-Chalmers Co., Milwaukee, Wis., $3,650; Fairbanks & Morse Co., $2,950 ($105 for installation); McCarthy Brothers & Ford, $3,345 (alternative offer, generator delivered as per second specifications, $3,185).

Engines—General Mercantile Co. to furnish Victor engine from the Erie Engine Works, $4,000; Ames Iron Works, Oswego, $4,470; Skinner Engine Co., Erie, Pa., $4,935; Ridgway Dynamo & Engine Co., Ridgway, Pa., $4,944; Richard Radley, $4,678; McCarthy Bros. & Ford, power plant complete, engines, generators, wiring, ventilation, fixtures, $55,000.

Ventilating—General Electric Co., steam turbines complete with generators, $2,946; Martin, Fisher & Sons, $2,500; Bicalky Fa[illegible] Co., $2,332; John W. D[illegible]orth Co., $2,217.

Lamps—McCarthy B[illegible] & Ford, $3,650; Standard Electric Mfg. [illegible] $3,870; Colonial Electric Co., Warren, [illegible] $3,870.

Fixtures—McCarthy B[illegible] & Ford, $20,350; Art Gas & Electric C[illegible] $23,887; Horn & Brannon, Philadelphia, [illegible]29, with an allowance for old fixtures [illegible] $1,000; Morreau Gas Fixture Co., $25,000 [illegible]hle, Philips Co., New York, No. 1, $24,[illegible] No. 2, $27,000.

Storage batteries—Mc[illegible] Bros. & Ford, $3,000; National Storage [illegible]attery Co., $2,579; Gould Storage Ba[illegible] Co., $2,700.

NEW YORK, N. Y.—[illegible] are asked until 11 a. m., May 17, by C. [illegible] J. Snyder, Supt. School Bldgs., Dept. of [illegible]cation, for installing electric equipm[illegible] in new Public School No. 164, on the e[illegible]ly side of 14th Ave., between 42d and [illegible] Sts., Boro. of Brooklyn.

BUTLER, PA.—Bids a[illegible] asked until 8 p. m., May 18, by H. E. [illegible]oulter, Secy of Council, for lighting the s[illegible] for a period of five years from July 1, [illegible]909. Bids will be received for either gas [illegible] electric lighting.

AMBRIDGE, PA.—The [illegible]bridge Light, Heat & Power Co., of th[illegible]own, has been incorporated with a capit[illegible] $150,000 to manufacture gas and electr[illegible] for lighting, heating and power purpo[illegible]. The incorporators are F. T. Heberli[illegible] E. G. Schell and John R. Miner, all of A[illegible]bridge.

SKUYLKILL HAVEN, PA.—Bids are asked until 8 p. m., May 31 by George E. Runkle, Secy. of the Town Council, for furnishing and installing a [illegible]-HP. engine, 200-HP. boiler and a 200-KW. dynamo at the electric light plant of th[illegible] borough.

ASHEVILLE, N. C.—The North Carolina Power Co., a subsidiary of the Weaver Power Co., has announced that as soon as an agreement with the Southern Ry. Co. can be reached, it will begin work on a power plant on the French Broad River which will cost about $450,000 and when completed will furnish a continuous current equal to about 10,000 HP. It is estimated that two years will be required to complete the work, employing a force of 150 men continuously. The dam will be 36 ft. in height. Capt. W. T. Weaver is Gen. Mgr.

HATTIESBURG, MISS.—We are officially advised that contract for constructing power-station building with one 500-KW. and one 325-KW. direct-connected units, also a 150-KW. motor-generator set, rehabilitation of about six miles of track, erection of overhead work, four cars and equipment of same, was awarded to A. M. HEWES, Monadnock Bldg., Chicago, by the Hattiesburg Traction Co., Hattiesburg, Miss., on April 8. It is expected that the work will be finished Aug. 15. This item was erroneously reported in a recent issue under Harrisburg, Miss.

SOUTH BEND, IND.—The Indiana & Michigan Electric Co. has petitioned the St. Joseph County Commissioners for a small tract of land near St. Mary's, necessary before construction work of the corporation's state line dam can start. Practically all of the land on the dam site has been purchased, and with the securing of a deed to the bit of property, which is a part of the county infirmary site, definite plans for the project will be worked out. The dam will be located at the state line, extending across the St. Joseph River from German to Clay townships. It will be the third largest of the series owned by the company and about 500 acres of land will be inundated by the overflow. A power-house will be built.

VINCENNES, IND.—Bids are asked by the Board of Public Works until 2 p. m., June 8, for lighting, by electricity for a period of ten years, the streets, alleys and other public places of said city with 260 enclosed arc lamps, each having an intensity of 2,000 c. p. energy, equivalent to 466 true watts each, or, approximately, 7.5 amps. at 70 volts at the lamp terminals. In addition to the said number of arc lights above specified the contractor shall place in position and connect ready for use on April 29, 1910, not less than 220 incandescent lamps of 16 c. p. The contractor shall bid on furnishing the city electric current required for lighting its public buildings. C. L. V. Tucker is Clerk.

INDIANAPOLIS, IND.—Blaine H. Miller, City Engr., is investigating a request made to the Board of Public Works by the Indianapolis Light & Heat Co. for permission to lay mains for a downtown heating system. The work is to be extensive and will necessitate tearing up many streets. The company proposes to supply its service from the central station, Louisiana St. and Kentucky Ave., moving a portion of its lighting plant to the station on Mill St. The mains of the system would be laid in Kentucky Ave., from Louisiana to Washington St., running eastward to Delaware St. Connection would be laid in Massachusetts Ave., in Meridian St. from Louisiana St. to Monument Pl., in Pennsylvania St. from Washington to New York Sts., and in Illinois St. from Louisiana to New York Sts. This system would be sufficiently extensive to furnish to all the buildings in the downtown district. If the request is approved by Mr. Miller and is granted by the Board of Public Works the company will begin installing its new system immediately. It is the intention to supply all the heating from the Kentucky Ave. station, where equipment will be installed. T. A. Wynne is Supt.

The Merchants' Heat & Light Co. has closed a deal for the purchase of the site of the Chandler & Taylor Co., iron manufacturers, 740 West Washington St., and within a short time will begin the erection of a heat and light plant to cost $300,000. It is the purpose of the company, according to Edward L. McKee, Pres., to extend its service northward, but it will still be confined to business houses. The plant will be patterned after the new Government power plant in Washington. It is expected it will be completed by Dec. 1. James B. Nelson, Indianapolis, is Mgr.

MACKINAW, ILL.—The Illinois Traction System has let a contract to J. J. JOBST for the construction of a new power and sub-

station at Mackinaw, which will cost $8,000. Plans are now being drawn to rebuild the plant at Minier at a cost of $8,000.

NORTH CHICAGO, ILL.—We are officially advised that bids were received on March 24 by J. E. Pillsbury, Ch. of Bureau of Navigation, Navy Dept., Washington, D. C., for outside lighting at the naval training station, Great Lakes, North Chicago, Ill. The contract for this work has been awarded to the only bidder, the D'OLIER ENGINEERING CO., 119 South Eleventh St., Philadelphia, Pa., at its bid, under Items 1, 2 and 3 of the specifications, of $5,516.

CARLINVILLE, ILL.—The Missouri Natural Gas Co., of St. Louis, Mo., is being organized by Pittsburg and St. Louis men for the purpose of piping natural gas from Carlinville, Ill., to St. Louis. The company will be capitalized at $500,000. Perry O. Laughner, of Pittsburg, is the principal promoter. The company has leases of 50,000 acres of land near Carlinville, and one well which has developed 3,000,000 cu. ft. of gas. The sand in the field is the same as that in the Casey field, and it is proposed to put down five more wells. Those in the enterprise are: J. D. Wise, James Thomas, J. H. Milliken and S. J. Beckley, St. Louis; Thomas Rinaker, Carlinville, Ill.; Perry O. Laughner, John Heck, A. V. Laughner, George E. Moore, Edward Ditrich, E. E. Laughner, Charles Yon and W. E. Laughner, of Pittsburg, Pa.; Harry Miller, of Casey, Ill., and R. D. Smith, of St. Louis, Pres. of the Central Illinois Construction Co. To obviate the necessity of securing the right-of-way for the 52 miles from Carlinville to St. Louis, it is expected that a deal can be made with the Illinois Traction Co. to use their right-of-way from the gas field over the proposed route of the traction company. Perry Laughner says a franchise will be asked in St. Louis and as the Missouri Natural Gas Co. will no thave any trouble introducing gas into St. Louis he believes a franchise will be granted. A meeting will be held in St. Louis within a week to organize the new company and elect officers. R. D. Smith, of St. Louis, will probably be elected Pres.

HUBBARD CITY, TEX.—We are officially advised that the Union Central Light & Ice Co. will make additions and extensions to its present plant, and there will be needed a power-house, ice machinery, transmission lines to the four surrounding towns, etc. $100,000 6% bonds will be issued. Edward Shelton is Supt.

NORTH YAKIMA, WASH.—Articles of incorporation have been filed by the Yakima Central Heating Co., with a capital stock of $100,000. Alexander Miller, A. F. Larson, O. E. Fechtor, H. B. Soudder and John L. Hughes are the Directors. A central heating plant is to be built to heat houses throughout the business district and some houses in the residential part of the city. It is expected the plant will be built and in operation by fall.

SAN DIEGO, CAL.—The San Diego Gas & Electric Co. has increased its capital stock from $1,500,000 to $3,500,000. It is said the company is planning extensive improvements to its plant.

COVINA, CAL.—Extensions of the Covina Valley Gas Co.'s system to the neighboring towns of Azusa and Glendora are contemplated in an application filed with the board of supervisors by C. S. S. Forney for a franchise to lay gas mains along the county highways in the Covina-Glendora-Azusa district. In his application, backed by resolutions of the commercial organizations of the district, Mr. Forney represents that he has acquired control of the Covina Valley Gas Co.'s plant at Covina, and proposes to extend the service to adjoining places.

SAN FRANCISCO, CAL.—It is stated that an auxiliary power plant is to be installed in the San Francisco mint which will make the Government building in a position to be independent of the local power companies. Joseph David Atkins, of the Division of Public Buildings of the Treasury Dept., is here preparing the plans for the proposed plant. It will cost $40,000 to install the machinery.

MONTEREY, CAL.—The Monterey County Gas & Electric Co. is to install a gas plant, put in two new boilers and build a transmission power line to Salinas. The total expenditure for these three improvements will be $70,000. W. H. P. Hill is Gen. Mgr., Monterey.

EUREKA, UTAH.—Jesse Knight will construct a power plant in Santaquin Canyon, running a line to Tintic and using the power for the operation of his smelter mines.

VANCOUVER, B. C.—The Provincial Executive has granted permission to the Vancouver Power Co. to build a 60-ft. dam at Cowultlam Lake for power generating purposes. Work on the undertaking, which will cost nearly $400,000 will start immediately.

BRIDGES.

(* *denotes that this work is advertised in Engineering News.*)

BOSTON, MASS.—Contract for constructing a draw span of the Chelsea St. bridge, bids opened on April 20, has been awarded to the NEW ENGLAND STRUCTURAL CO., 110 State St., Boston, at $18,948. William Jackson is City Engr.

UTICA, N. Y.—The Senate, it is stated, has passed the bill providing for an appropriation of $20,000 toward constructing a bridge over Erie Canal at Seneca St. Estimated cost, $24,000.

AVON, N. Y.—The Town Boards of Caledonia and Avon contemplate the construction of a bridge over the Genesee River, using the abutments of the present structure. Estimated cost, $10,000.

PITTSBURG, PA.—Plans are being prepared for the Union Bridge to be constructed over the Allegheny River at the Point. Estimated cost, $950,000.

FRANKLIN, PA.—Bids are asked by the County Commissioners until May 29 for a bridge over French Creek, at Franklin.

HOKENDAUQUA, PA.—Bids are asked until 11.30 a. m., May 27, by the County Commissioners of Northampton and Lehigh Counties at the office of the County Commissioners of Lehigh County, Allentown, for labor and supply of certain materials for and in and about the superstructure of the bridge over Lehigh River here.

LEWISTOWN, PA.—We are officially advised that contract has been awarded by the Commissioners of Mifflin County, Lewistown, for the construction of a highway bridge over Kishacoquillas Creek, near Grinding shop in Derry Township, and on the public road leading from a point on the Lewistown and Reedsville Turnpike across said Kishacoquillas Creek to Lower Manus station on the Mifflin and Centre County branch of the Pennsylvania R. R. to the FERRO-CONCRETE CO., of Harrisburg, Pa., at $4,080. Bids were opened on May 8. W. H. Myers is Clk. Comrs.

*PHILADELPHIA, PA.—Bids are asked until noon, June 9, by W. Hunter, Ch. Engr., Philadelphia & Reading Ry. Co., 520 Reading Terminal, Philadelphia, for construction of work appurtenant to the abolishment of grade crossings on the P. G. & N. R. R., Contract No. 4, masonry trestle and embankment from north side of Jefferson St. to north side of Montgomery St., and Contract No. 6, bridges ready for ballast from the north side to north side of same streets.

*WASHINGTON, D. C.—Bids will be received by the Commissioners of the District of Columbia until noon, May 22, for widening a concrete bridge on the line of 16th St. extended across Piney Branch in the District of Columbia.

*NORFOLK, VA.—The following bids were opened on April 26 by the Board of Control for the construction of a reinforced-concrete bridge: J. W. DAVIS, Newport News, $5,160 (awarded contract); McDermot Construction Co., Norfolk, $6,800; Tiffany & Sail, Buffalo, N. Y., $7,574; Louis Lawson, Norfolk, $7,750; Alsopp & Pierce, Newport News, $7,000; Seabourn Engineering Co., Norfolk, $8,200; Specialty Construction Co., Norfolk, $8,884; Dodson & Doyle, Norfolk, $12,200. W. T. Brooks is City Engr.

SAVANNAH, GA.—We are officially advised that the GADSEN CONTRACTING CO., has been awarded contract by the County Commissioners for constructing reinforced-concrete outlet locks and bridges, Buckhalter-Dundee Canal. Reuben Butler is Clk.

PADUCAH, KY. — The VINCENNES BRIDGE CO., of Vincennes, Ind., has been awarded by the Fiscal Court contract to build a bridge over Clarks River and one over Perkins Creek, at $20,300. The Clarks River bridge is to be built of concrete and iron and the Perkins Creek bridge entirely of concrete. There were ten bidders.

LIMA, OHIO.—Bids will be received by the Board of County Commissioners, S. W. Wright, Chn., until May 18, for constructing a 177-ft. steel bridge at Scott's Crossing, Marion Township, and two concrete masonry abutments.

ELLERTON, OHIO.—Bids will be received until May 29 by the Board of County Commissioners at the office of the County Audr., Dayton, for the substructure and superstructure of a bridge over Bear Creek, near Ellerton, Jefferson Township.

TOLEDO, OHIO.—Bids will be received by Board of County Commissioners of Lucas County, Toledo, until 10 a. m., June 4, for the performance of all labor and the furnishing of all materials, tools, machinery and appliances required for the construction and building complete and ready for travel of the superstructure of a bridge over Swan Creek on county road No. 125 in Waterville Township.

CLEVELAND, OHIO.—Bids will be received at the office of the Board of Commissioners of Cuyahoga County, until 11 a. m., June 5, for the construction of bridge work per report No. 2350, embankment, Windfall Ave., Newburg Township.

PORTLAND, IND.—The Commissioners of Jay County have decided to construct a bridge in Jefferson Township. Bids will soon be asked.

CONNERSVILLE, IND.—Bids are asked by the Commissioners of Fayette County, until noon, May 25, for the construction of one 35-ft. concrete bridge, known as the Matney bridge, one 50-ft. steel bridge, known as the Lockhart bridge, and for a new concrete floor 16 × 50-in. in the Garner bridge. J. L. Kennedy is County Audr.

FOND DU LAC, WIS.—Bids were opened by the Board of Public Works on May 1 for furnishing material and taking down present structures and erecting two new plate girder span bridges over West Branch of Fond du Lac River. The lowest bid was that of the Wausau Iron Works, of Wausau, at $8,260.

NEENAH, WIS.—The Chicago & Northwestern R. R. Co. awarded contracts for constructing a steel bridge on concrete abutments across Little Lake Buttes des Morts, Lake Winnebago, about one mile, and two bridges across Fox River at this point, to ADOLPH GREEN, of Green Bay, Wis. The two last-named bridges are each about half mile long. Cost, $1,250,000 to $1,500,000.

SHEBOYGAN, WIS.—The Common Council has awarded contract for constructing a steel bridge across the Sheboygan River at Pennsylvania Ave. to the MILWAUKEE BRIDGE CO., Milwaukee, Wis., at $83,240, single leaf bascule type. Other bidders were Strobel Steel Construction Co., Chicago, $86,530; Greiling Bros. Co., Green Bay, Wis.; Worden-Allen Co., Milwaukee, $96,121; Penn Bridge Co., Beaver Falls, Pa., $113,500; Conrad Raulf, Jr., & Co., Milwaukee, $104,800; Modern Steel Structural Co., Waukesha, Wis., $92,978.

COUNCIL BLUFFS, IOWA.—The construction of a railroad bridge over the Missouri River between Council Bluffs and Omaha, Neb., is under consideration, it is stated, by the Iowa & Omaha Short Line, West Council Bluffs Independent Club and Central Bridge Co., of Council Bluffs.

WICHITA, KAN.—Bids will soon be asked by the County Commissioners for the construction of ten bridges. Estimated total cost, $7,324.

MINOT, N. DAK.—Bids will be received by the Board of Commissioners of Ward County until 2 p. m., May 21, for furnishing corrugated metal culverts for one year, beginning with date of contract.

MALVERN, ARK.—The Hot Springs County Bridge Commission contemplates the erection of two bridges over the Ouachita River, one at Grigsby's Ford and the other at Green's Ferry. Estimated cost, about $25,000.

HILLSBORO, TEX.—Hill, Whitney and Bosque Counties have under consideration the construction of a bridge over the Brazos River. R. W. Hunt, of Hillsboro, is Audr. Hill County.

TACOMA, WASH.—Plans are being prepared for the construction of four concrete arch bridges and one steel span. Estimated cost, about $300,000. F. L. Davis is City Engr.

SAN LUIS OBISPO, CAL.—About $40,000 will be expended for new bridge work here. George Story, of San Luis Obispo, is Engr. W. J. Miles is City Clk.

REDWOOD CITY, CAL.—Bids will be received by the Board of Supervisors until May 17 for the constructios of a reinforced-concrete bridge across creek near Packard's store at San Gregorio, in Fifth road district.

O'CONNELL, ONT.—Bids will be received until May 15 by W. M. Shield, Township Clk., for constructing the steel superstructure across the east branch of the Severn River, on Concession Q, Township of Rama; also separate bids for concrete abutments in said bridge.

TORONTO, ONT.—Bids will be received until June 1 by the Board of Control for the reconstruction of the bridges on Dundas St. over the tracks of the Grand Trunk & Canadian Pacific Railways. John J. Ward is Vice-Chn. Bd.

OTTAWA, ONT.—Bids will be received until May 31 by L. K. Jones, Secy. Dept. of Railways and Canals, for all work required in connection with the abutments and approaches to the new bridge to be built at Kingston Locks Station.

McNAB, ONT.—Bids will be received by John McGregor, Clk., until May 18, for the construction of a concrete arch bridge and abutments with necessary approach work. Plans and specifications may be seen at the office of McCallum & McAllister, Engrs., 612 Continental Life Bldg., Toronto.

EDMONTON, ALTA.—The Canadian Pacific Ry. Co. and the City Council have come to terms regarding the high level bridge to be constructed across the Saskatchewan River here, and construction will be commenced within a month. Estimated cost, $350,000.

BUILDINGS.

PITTSFIELD, MASS.—The Webber property, on the corner of North and Bradford Sts., has been bought by England Bros. The property has a frontage on North St. of 90 ft., and extends back to Northrup St., giving a frontage of 225 ft. on Bradford St. It is the intention to build a 4-story brick block to cover the entire lot. The first floor will be used for stores, while the three upper stories will be devoted to modern apartment flats. The building will cost in the neighborhood of $100,000.

NEW HAVEN, CONN.—The plans of Allen & Williams, Architects, for a new county court building in this city has been accepted and the County Commissioners, Jacob Walters, Chn., have been instructed to carry out the work.

HARTFORD, CONN.—Plans submitted by Davis & Brooks, Archs., 49 Pearl St., this city, for an assembly hall and manual training school at the West Middle School have been accepted by the Committee, W. H. Corbin, Chn. This building will be 120 × 60 ft. Plans submitted by Brocklesby & Smith, Archs., 36 Pearl St., for an addition to the Noah Webster school were accepted also. The contract for constructing an addition to the last named school has been awarded to McINTYRE & AHERN, 50 John St.

NEW BRITAIN, CONN.—The School Board, E. A. Moore, Chn. Bldg. Com., has reported plans for remodeling (including heating and lighting) of the Rockwell and Bartlett schools at a cost of about $67,000.

WINDSOR, CONN.—William H. Filley and Horace H. Ellsworth have had plans prepared for a business block on Broad St. Same will be 72 × 36 ft., three stories high, of red brick trimmed with Indiana limestone. The interior finish will be of hard wood.

OGDENSBURG, N. Y.—A high school and theater is to be erected by the parish of St. Mary's Cathedral, Mgnr. Joseph H. Conroy, 306 Franklin St. The building to be of stone and brick of semi-fireproof construction, three and four stories high, 70 × 130 ft. It will cost about $75,000.

SYRACUSE, N. Y.—The Society of Concord will erect a synagogue of stone and structural iron construction at a cost of $65,000. The site and architect are not yet selected. Gates Thalheimer is Chn. Bldg. Com., Harrison and South State Sts.

NEW YORK, N. Y.—Bids are asked by J. W. Stevenson, Comr. of Bridges, Park Row Bldg., until 2 p. m., May 20, for the construction of the foundations of the municipal building.

Harry T. Howell, Archt., Third Ave., near 149th St., is preparing plans for a 5-story brick tenement, to be erected in the north side of 205th St., 150 ft. west of Ninth Ave., for Joseph L. Bainford, of 457 West 150th St. The building will be 50 × 37.11 ft., and will cost $65,000. It will be equipped with steam heat and all improvements.

The following bids were received on May 3 by C. B. J. Snyder, Supt. of Bldgs., Dept. of Education, for installing heating and ventilating apparatus in new Public School No. 101, on the north side of 111th St., about 43 ft. west of Lexington Ave., Boro. of Manhattan: Gilles & Geoghegan, 537 West Broadway, $29,390; W. J. Olvaney, 177 Christopher St., $30,897; James Curran, 512 West 36th St., $31,197; E. Rutzler Co., 127 White St., $29,494; Frank Dobson, 319 E. 53d St., $29,400; Baldwin Engineering Co., 209 West 33d St., $35,059; H. L. Philip, $31,863; Blake & Williams, 211 West 20th St., $31,722; Raisler Heating Co., 1966 Broadway, $32,148; D. J. Rice, 103 Park Ave., $36,285.

NEW YORK, N. Y.—Bids are asked until 10.30 a. m., May 19, by Nicholas J. Hayes, Fire Comr., for the erection and completion of a new building for a hook and ladder company, to be located on the southerly side of Hancock Pl., 105 ft. west of Manhattan Ave., Boro. of Manhattan; for the erection and completion of a new building for an engine and hook and ladder company, to be located on the westerly side of White Plains Road, 400 ft. north of Morris Park Ave., Boro. of the Bronx.

L. F. J. Weiher, 271 West 125th St., has prepared plans for a 6-story tenement, 50 × 49.6 ft., for Julia Bachrach, 64 East 91st St., to be erected in the west side of 185th St., 127.1 ft. east of Broadway, costing $40,000.

J. Riley Gordon, 244 Fifth Ave., Arch. for the New York Lodge No. 1 of the Benevolent Protective Order of Elks, has filed with the Building Superintendent the plans for the clubhouse to be erected for the order on the site at 108 to 116 West 43d St., opposite the Army and Navy Club house. It is to be a structure of eleven stories, having a frontage of 100 ft. and a depth of 100.5 ft. The facade is to be of granite and brick with limestone trimmings, in the style of the Italian Renaissance, with rows of Doric engaged columns at the lower stories and a similar row of Corinthian engaged columns at the upper stories supporting the cornice and balustrade of the mansard. Cost, about $1,000,000. The BALTIMORE BRIDGE CO., 68 Broad St., New York, has contract for the structural steel.

NEW YORK, N. Y.—Bids are asked by C. B. J. Snyder, Supt. of School Bldgs., Dept. of Education, until 11 a. m., May 17, for improving the sanitary condition and alterations of Public Schools Nos. 5, 10, 39, 57 and 103, Boro. of Manhattan; for alterations, repairs, etc., for Public Schools Nos. 11, 28, 32, 45, 48, 51, 56, 58, 67, 69, 80, 84, 87, 94, High School of Commerce and DeWitt Clinton High School, Boro. of Manhattan; for alterations, repairs, etc., to Public Schools 14, 16 (old and new), 17, 18, 19, 67, 68 (old), 71, 72, 73, 78 and 81, Boro. of Queens.

Harry T. Howell, Third Ave. and 149th St., is preparing plans for a 5-story brick and stone apartment house, to be erected on the west side of Trinity Ave., 100 ft. south of 163d St., 50 × 110 ft., all improvements, and to cost $60,000. James Higgins, 918 Trinity Ave., is owner.

Plans have been approved for 93 new buildings in Queens, to cost, with the plumbing, $467,233. One of the plans is for a 3½-story brick hotel, 80 × 264 ft., to be built on the west side of Columbus Ave., between the Boulevard and the Ocean, Edgemere, by A. S. Iverson, of 536 Broadway, New York, at a cost, including plumbing, of $110,000.

Joseph Koeler is to build four 3-story brick tenements, each 23 × 68 ft., on the south side of Madison St., 28 ft. west of Covert Ave., Ridgewood, at a cost of $46,000.

The Sinking Fund Commission has voted nearly 1,000,000 for armories. The larger part of this, $625,000, is to go to build an armory for the Twenty-second Regiment Engineers, N. G. N. Y., at 168th St. and Fort Washington Ave. The Seventh Regiment gets $210,000 more to build an additional story and install a private lighting and heating plant in its armory. Noted last week.

NEW YORK, N. Y.—Bids are asked until 3 p. m., May 27, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the foundation, track columns and basement floor of the new U. S. post-office building, to be erected on Eighth Ave., from 31st to 33d Sts., from plans and specifications by McKim, Mead & White, 160 Fifth Ave. The building is to contain eight stories and will cost approximately $3,500,000. J. E. Woodwell, of the firm of L. B. Marks, 103 Park Ave., and J. E. Woodwell, Manhattan, has been appointed Consult. Engr., for the mechanical and electrical equipment, including heating and ventilation.

Bids are asked by John J. Barry, Comr. Dept. of Correction, until 11 a. m., May 20, for furnishing all the labor and materials required for the erection and completion of a 3-story and cellar brick fireproof dormitory building on Harts Island, New York City.

Harry T. Howell, Third Ave. and 149th St., is preparing plans for a 5-story brick tenement to be erected in the north side of 205th St., 150 ft. west of Ninth Ave., for Joseph Balmford, of 457 West 150th St., at an estimated cost of $60,000.

Within a month the old Hotel Metropole, at Broadway, Seventh Ave., and 42d St., opposite the Times Building, will be torn down and on the site there will be erected a 6-story store and office building, so constructed that several stories may be added to it at any time conditions may warrant. The structure, plans for which are now being prepared by Henry Ives Cobb, Arch., 42 Broadway, will cost about $250,000. In the basement, which will extend to the curb line on the Broadway, Seventh Ave. and 42d St. sides of the building, will be a rathskeller. The ground floor will be devoted to stores, and the second floor will be inclosed with plate glass. The four upper floors will be planned as offices—one suite to a floor. It is expected that the structure will be completed early in 1910.

NEW YORK, N. Y.—Bids are asked until 10.30 a. m., May 24, by Nicholas J. Hayes, Fire Comr., 157 East 67th St., for furnishing all the labor and materials required for completing contract (which has been declared abandoned) for additions and alterations for

the quarters of Hook and Ladder Company 56, located at No. 124 Greenpoint Ave., Boro. of Brooklyn.

Bids are asked by C. B. J. Snyder, Supt. School Bldgs., Dept. of Education, until 11 a. m., May 24, for alerations, repairs, etc., for Public Schools Nos. 1, 3, 16, 21, 23, 29, 38, 44, 106, 107, 108, 113 and 125, Boro. of Manhattan; for repairs to heating and ventilating apparatus of Public Schools Nos. 6, 53 and 64, Boro. of Manhattan; for fire protection, etc., at Public Schools Nos. 23, 39 and Morris High School, Boro. of The Bronx; for alterations, repairs, etc., at Public Schools Nos. 39, 43, 45, 46, 50, 51, 52, 55, 58, 59, 62, 64, 82, Boro of Queens; for alterations, repairs, etc., at Curtis High School and Public Schools Nos. 5, 12, 14, 15, 17, 18, 19, 20, 23, 24, 26, 29 and 34, Boro. of Richmond.

The following bids were received on May 10 by C. B. J. Snyder, Supt. School Bldgs., Dept. of Education, for installing heating and ventilating apparatus in new Public School No. 162, on the northerly side of St. Nicholas Ave., between Willoughby Ave. and Suydam St., Boro of Brooklyn: Frank Dobson, Inc., 319 East 83d St., New York, $32,931; E. Rutzler Co., 127 White St., New York, $33,117; Blake & Williams, 211 West 20th St., New York, $31,984; William J. Olvaney, 177 Christopher St., New York, $35,980; Raisler Heating Co., 1966 Broadway, New Work, $35,932; Storms & Co., $35,870; Gillis & Geoghegan, 537 West Broadway, New York, $34,580; James Curran Mfg. Co., 512 West 36th St., New York, $34,800; Harry L. Philos, $34,413.

BUFFALO, N. Y.—Plans are being prepared by Howard L. Beck, City Arch., 12 Erie County Bank Bldg., for a 2-story brick fire house to be built on Main St., near Woodbridge Ave., for District 34.

The Buffalo Cold Storage Co. will erect an 8-story storage warehouse, 120 × 126 ft., of brick and structural steel, on Columbia St. and the Lehigh Valley R. R. D. E. Knowlton is Pres., Perry and Columbia Sts.

Lansing & Beierl, Archs., 371 Pearl St., have completed plans for the main college building, 200 × 311 ft., to be erected at Main and Jefferson Sts., by the Canisius College, Rev. Father Augustine Miller, Pres., Washington and Tupper Sts. The building will be of stone, brick and structural iron construction.

Bids are asked by Robt. A. Wallace, Arch., 19 Builders' Exchange, until May 18, for construction of a stone or brick and structural iron church, 56 × 110 ft., at the corner of Richmond Ave. and West Utica St., for the St. Luke's German Evangelical congregation. Estimated cost $70,000 for stone; $50,000 for brick. Bids will be received also for 2½-story and basement parsonage, 28 × 52 ft., adjoining, of stone or brick construction.

FORT H. G. WRIGHT (New London, Conn., post-office), N. Y.—Bids are asked until 10 a. m., June 7, by Capt. Charles T. Baker, Q. M., New London, Conn., for construction proper of two double lieutenants' quarters at Fort H. G. Wright, N. Y., and one double lieutenants' quarters at Fort Terry, N. Y., and installing plumbing, heating plants and electric wiring in same.

LIBERTY, N. Y.—We are officially advised that the plans of S. O. and H. A. Lacey, Archs., Binghamton, N. Y., have been adopted for erecting a $60,000 school building at Liberty. The building will be a grammar school and academy combined, 81 × 121 ft. It is to be a 3-story brick, grouped in the form of the letter U, consisting of the main structure in the center, with wings on each side. The building will seat 150 pupils in the academical portion, and 600 in the grammar department.

MOUNT VERNON, N. Y.—N. Serracino, Arch., of 1170 Broadway, New York, advises us that he has been commissioned by the Rev. Alberto Matteucci, Rector of the Church of Our Lady of Mount Carmel, to prepare plans and specifications for a new church building to be erected in Mount Vernon, above a basement built in 1900. The upper part of the church will consist of white bricks and limestone, with two towers, and will seat about 800.

ERIE, PA.—Joseph Frank, Arch., Scott Block, is preparing plans for a 3-story warehouse of stone, brick and steel construction, 75 × 150 ft., which C. A. Curtze will build at the corner of Twelfth and Peach Sts.

WILKINSBURG, PA.—P. W. FINN, Altoona, and Grant Boulevard, Pittsburg, has been awarded the contract for the proposed Wilkinsburg High School building, 108 × 224 ft., that will be built this summer at North and Walnut Sts., he being the lowest bidder at $214,000. The building will be of brick and sandstone, and must be completed and ready to turn over to the board within twelve months. Thomas H. Scott, 220 Fourth Ave., Pittsburg, is Arch.

PHILADELPHIA, PA.—Bids are asked until noon, May 17, by Joseph S. Neff, M. D., Dir. Dept. Public Health and Charities, for the municipal hospital, Second and Luzerne Sts., for the construction and erection of isolation building; cover over tracks on coal pocket; ambulance chambers and tunnel ventilations; enclosing corridors of scarlet fever group; also corridor connecting contagious disease building and exit building; blow off tank and piping and extension and connection of water main and fire main to Second St.; complete, with all appurtenances. Philip H. Johnson, Land Title Bldg., is Arch.

PITTSBURG, PA.—The contract for the erection of the proposed new banking and office building for the Second National Bank has been awarded to the THOMPSON-STARRETT CO., 49 Wall St., New York, on a cost plus a percentage basis. The total cost of the structure will be about $350,000. It will be ten stories in height, 36⅔ × 110 ft., and of structural steel, stone, brick and terra cotta, making it fireproof. It will have steam heating system, electric power plant, high grade plumbing system and water filtering system. Alden & Harlow, Farmers' Bank Bldg., this city, are Archs.

WOODVILLE, PA.—The LEY CONSTRUCTION CO., Park Bldg., Pittsburg, has been awarded the contract for the construction of the first of the proposed buildings at the Allegheny County Home here, at $55,334. This was the lowest of the 13 bids submitted. The building will be the men's dormitory, and will be of brick and terra-cotta construction and fireproof. Contracts for other buildings will be awarded by the Allegheny County Commissioners, Pittsburg, during the next few months. The sum of $400,000 will be expended within the next two or three years in the construction of buildings at the home here.

ATLANTA, GA.—We are officially advised that the H. L. STEVENS & CO., of Atlanta, have been awarded the general contract for constructing the Forsyth theater and office building. Plans and specifications are on file at the office of Engineering News for the benefit of sub-contractors. A. Ten Eyck Brown, Atlanta, is Arch.

CLIFTON FORGE, VA.—Bids are asked until 3 p. m., June 9, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring) of the U. S. post-office at Clifton Forge.

MONTGOMERY, ALA.—Bids are asked until June 15, by the School Board for constructing a 3-story and basement high school of brick with stone trim. The equipment will include that for manual training, domestic science and general school. Frank Lockwood, 121 Adams St., Montgomery, is Arch. Plans will be ready on May 20.

C. A. McCune has let the contract to the DES MOINES BRIDGE & IRON WORKS for steel and iron girders that are to be used in reinforcing the fireproof floors of the new addition to the Methodist hospital at Tenth and Pleasant Sts. Construction work on the addition is progressing rapidly and it is stated that the building will be ready for occupancy before fall.

DOTHAN, ALA.—James Knox Taylor, Superv. Arch., Treasury Dept., Washington, has awarded to GUDE & CO., Atlanta, Ga., contract for the construction of a post-office at Dothan, Ala., at $82,800. Time, June 1, 1910.

SHREVEPORT, ALA.—The Sisters of Charity of the Incarnate World have purchased about ten acres in the best residence section of Shreveport, La., and will build an up-to-date sanitarium at a cost of about $100,000, to be known as the Schumport Memorial.

YAZOO CITY, MISS.—Bids were received as follows on May 1-0 for the construction of post-office building at Yazoo City, Miss.: McHenry-Beatty Construction Co., East Liverpool, Ohio, $47,225; Gude & Co., Atlanta, Ga., $50,900; King Lumber Co., Charlottesville, Va., $48,400; Gindele Bros. & Co., Chicago, $48,975; Rubush-Dabbs Construction Co., Meridian, Miss., $46,575. Time, May 31, 1910.

ALEXANDRIA, LA.—Bids will be received until June 15 by the School Board of Rapides Parish, La., for the erection of a 2-story and basement brick school building. Estimated cost, $45,000. D. B. Showalteer is Parish Supt., Alexandria, La.

MAYFIELD, KY.—Bids are asked until 3 p. m., June 15, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction complete of the U. S. post-office at Mayfield.

CLEVELAND, OHIO.—The Hollenden Hotel will be increased by additions containing 600 rooms. Plans for the additions are being drawn by George F. Hammond, Arch., 734 Euclid Ave., Cleveland, who built the original structure. He proposes to erect a 200-room addition which will have the width of the crystal dining room and will extend back to Vincent Ave. The structure will be built over the kitchen and will be nine stories high. The second addition will be built on the lot formerly occupied by the Hub Transfer Co., the ground lease for which was recently acquired by Liberty E. Holden. The building now on the grounds will be razed and a 400-room structure erected, which will extend from Superior Ave. to Vincent Ave. The additions will represent an investment of $3,000,000.

NILES, OHIO.—The Board of Education has decided to build a new high school building here at a cost of $100,000 as soon as an issue of bonds for this purpose can be issued. No plans have been prepared to date.

FORT WAYNE, IND.—G. E. Bursley & Co. are preparing to ask for bids for the construction of a wholesale grocery and warehouse on Pearl St. A spur track will be built.

Bids are asked by H. E. Branning, Township Trustee, until June 1, for the construction of a modern brick school building in District No. 1.

INDIANAPOLIS, IND.—Delavan Smith, proprietor of the "Indianapolis News," has ordered plans for the construction of a 10-story business building at 32 West Washington St. A portion of the building will be occupied by the newspaper plant.

The Trustees of the Indiana Village for Epileptics have let a contract to Foltz & Parker, Archs., Union Trust Bldg., for plans for four additional cottages. Bids will be received at Room 14, State House.

J. C. Shaf has awarded a contract to LYNN B. MILLIKAN for the erection of three additional stories on the Marquette Hotel on Indiana Ave.

FRANKFORT, IND.—The Clinton County Medical Society has procured a site upon which to erect a tuberculosis hospital. Bids will be in order as soon as plans are approved. Dr. McFatrick is in charge.

JASPER, IND.—The Commissioners of Dubois County are preparing to construct a new and modern court house. Bids will be in order as soon as the County Council appropriates the money.

MADISON, IND.—Bids will be received by the School Board, Charles H. Supplee, Chn., until noon, May 20, for the erection of a 2-story 8-room school building. H. L. Bass & Co., Indiana Pythian Bldg., Indianapolis, are Archs.

MISHAWAKA, IND.—The School Board has ordered plans upon which bids will be asked for the erection of a new high school building. Estimated cost, $100,000.

DECATUR, IND.—The Trustees of the United Brethren Church are preparing to ask for bids for the erection of a church and parsonage. Rev. Isaiah Imler is Pastor.

SPENCER, IND.—The Commissioners of Owen County will ask for bids for the construction of an $80,000 court-house as soon as plans can be made.

MICHIGAN CITY, IND.—The Railcreek Land Co., recently incorporated, will ask for bids soon for erection and completion of a club house, gymnasium and athletic field. John N. Ledbetter, William W. Vail and C. R. Collins, are Dirs.

PLYMOUTH, IND.—Bids are asked by the Commissioners of Marshall County until 2 p. m., June 7, for remodeling and improving County court-house. Charles M. Walker is County Audr.

DELAVAN, WIS.—Guilbert & Funston, Archs., Racine, Wis., have prepared plans for a $50,000 banking house and office building for C. B. McCann, to be occupied by Bank of Burlington and Wisconsin Condensed Milk Co. It will be of blue Bedford stone construction, 33 × 115 ft.

MADISON, WIS.—Bids are asked by M. E. McCaffrey, Secy., University of Wisconsin, until May 24, for the entire construction of the Forest Products Laboratory. Plans were prepared by University architect.

MILWAUKEE, WIS.—Mrs. Katherine Kennedy has awarded contract for the erection of an apartment house at Marietta and Concord Aves., to RIESEN & WILKE, Martin Tullgren & Son., are Archs.

The American Express Co. has commissioned H. W. Buemming, Arch., Pabst Bldg., to prepare plans for a $45,000 to $50,000 warehouse and office building at Cass and Huron Sts. The building will be 80 × 150 ft., of steel and brick construction. A. C. Pink is agent for Milwaukee.

The Milwaukee Drug Co. has awarded mason contract on $100,000 wholesale drug building at Jefferson and Michigan streets to DAHLMAN CONSTRUCTION CO.; iron work to C. HENNECKE CO., Howland Russell is Arch.

The Board of Trustees, Milwaukee Public Museum, has awarded contract for all mason work, excepting foundation, already constructed, on $250,000 addition to public museum, to CONRAD RAULF, JR., & CO., Milwaukee, at $96,000. Ferry & Clas, Archs., Milwaukee.

ST. PAUL, MINN.—Sam S. and Lee Shubert, Inc., are having plans prepared by Marshall & Fox, Archs., First National Bank Bldg., Chicago, Ill., for two theaters, one to be built in St. Paul and another in Minneapolis; each at a cost of $250,000. They will be built of reinforced concrete fireproof construction, seating about 1,200. Bids will be taken soon on the general construction.

Kees & Colburn, Archs., Donaldson Bldg., Minneapolis, Minn., are preparing plans for general construction of a physicians' office building here, at Fourth, Fifth and St. Peter Sts. It will be eleven stories high, 50 × 300 ft., with steam heating, electric lighting and built of reinforced concrete fireproof construction. It will have compressed air plant, three electric passenger elevators, and marble and tile work. Cost, $650,000. Bids will be taken by Cathcart & Maxfield, agents, city, Aug. 1.

ST. PAUL, MINN.—Postle, Mahler & Benson, Archs., 709 Germania Life Bldg., are taking bids on the general construction of a 7-story pressed brick and cut stone wholesale building for Stronge & Warner Co., city. It will be of reinforced concrete fireproof construction, having electric elevators, automatic sprinkler system and power plant. Cost, $250,000.

PITTSBURG, KAN.—James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., has awarded contract for the construction of a post-office building at Pittsburg, Kan., to the INTERSTATE CONSTRUCTION CO., Saginaw, Mich., at $67,540.

ABERDEEN, S. DAK.—J. B. NELSON, has been awarded the contract for the general construction of the 6-story pressed brick and cut stone, reinforced-concrete fireproof bank and office building, 50 × 142 ft., here for the Citizens' Trust & Savings Bank, C. A. Russell, Pres. F. H. Ellerbee, St. Paul, Minn., is Arch. Cost, $125,000.

KEARNEY, NEB.—James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., has awarded contract for the construction of a post-office at Kearney, Neb., to the NORTHWESTERN CONSTRUCTION CO., Wahpeton, N. Dak., at $89,000. Time, May 31, 1910.

FORT CROCKET (Galveston post-office), TEX.—Bids are asked until 2 p. m., May 31, by Capt. P. Whitworth, Q. M., for the construction, plumbing, heating and electric wiring of 25 reinforced concrete buildings at this post.

*FORT SILL, OKLA.—Bids are asked until 10 a. m., June 10, by Capt. David L. Stone, Constr. Q. M., for the construction, plumbing and wiring of the following reinforced concrete buildings: One Colonel's quarters; two field officers' quarters; three four-set officers' quarters; six field artillery baracks; one band barrack; four double sets N. C. O. quarters; one administration building; one post exchange; two storehouses; one bakery; six battery stables; one band stable; one Q. M. stable; three double stable, guard and shop building; six gun sheds; two hay sheds; one granary; one coal shed; one wagon shed; one pump house.

SAN FRANCISCO, CAL.—The Board of Public Works has awarded contracts for work on the Hancock Grammar Schoool and the San Francisco Hospital. The successful bidders on the school were: F. H. BORN, general construction, $89,519; J. E. O'MEARA, plumbing, $5,675 ... ZIEL, heating, $13,107; ... KAISER, plastering, $6,... IRON WORKS, steel, $20,6... VOGT secured the bid for ... foundation work at the h... $42,397. Newton J. Tharp is ... Arch. ...OBERT DAL... NOWLES & ... RALSTON FOSTER & ... avating and ... al site for

WINNIPEG, MAN.—The con... for erecting the stations on the Natio... Transcontinental R. R. between Winni... Man., and Lake Superior Junction, Ont... as been let to J. J. VOPNI, Winnipeg, ...lan. Cost, $114,000.

Bids will be received by E. ... Wood, Secy. of the Bd. of Health, until ... May 25, for the erection of a sanitari... at Ninette to be used as a home for consu...ves. Plans and specifications may be se... the Provincial Board of Health offi... Winnipeg, Man., and also at the offices o... H. Schillinglaw, Arch., Brandon, Man.

BRANDON, MAN.—W. A. Elli... Arch., is preparing plans for the followin... al buildings: Y. M. C. A., $70,000; ad...ons to C. W. Robinson & Co.'s store, $30,0... fire hall, $25,000; Grayson & Co. store, $8,...

SASKATOON, SASK.—The contract for constructing a school has been l... to A. W. CASSIDY, of this city, at $50,00...

The Canadian Northern R. R. Co. will build a depot here to cost $50,000.

EDMONTON, ALTA.—The School Board has decided to erect a high school costing $100,000. Bids will be called shortly.

VICTORIA, B. C.—Bids will be received until May 31 (1) for the erection and completion of a reinforced-concrete and brick building; (2) for the erection and part completion of a reinforced-concrete and brick building. Evered Criddle is Superv. Arch., Public Works Dept., Victoria, B. C.

WATER SUPPLY—IRRIGATION.

(** denotes that this work is advertised in Engineering News.*)

PORTLAND, ME.—Allen B. Hazen, 103 Park Ave., New York, will make a preliminary survey for a water main from Portland to Sebago Lake, about 16 miles in length.

ANDOVER, ME.—We are officially advised that CHARLES N. TAYLOR, Wellesley, Mass., has been awarded contract for furnishing all material and constructing a water system for the Andover Water Co., Andover, consisting of about four miles of 6 and 8-in. pipe and concrete dam.

MILO, ME.—We are officially advised that the Milo Water Co., Milo, has awarded contract for furnishing all materials and constructing a water system, consisting of about six miles of 6, 8 and 10-in. pipe, 400,000-gallon reservoir, power pump and steam pump, and concrete pumping station to CHARLES N. TAYLOR, Wellesley, Mass.

*CONCORD, MASS.—Plans and specifications are on file at the office of Engineering News, New York, for building an intake in Nagog Pond, and laying c.-i. pipe and appurtenances in Acton and Concord. Bids are asked until May 20.

NORWALK, CONN.—It is proposed by the city to construct a water-works here. Cost, $70,000. Charles N. Wood, of Norwalk is City Engr.

YONKERS, N. Y.—Bids were received until May 17 by the Board of Contract and Supply, James D. McIntyre, Secy., for furnishing and delivering f. o. b. Yonkers an engine and dynamo for tube well pumping engine; also a submerged centrifugal pump direct to a standard motor for the filter beds of the water-works.

BUFFALO, N. Y.—The Board of Aldermen on April 26 passed an ordinance rescinding its previous action asking the City Clerk to procure bids for two 20,000,000-gallon pumps and will receive bids for two 30,000,000-gallon pumps.

Bids will be received until May 14 by Francis G. Ward, Comr. Pub. Wks., for constructing a water-works pumping station at the foot of Porter Ave.

NEW YORK, N. Y.—Bids are asked until 2 p. m., May 19, by John H. O'Brien, Comr. Water Supply, Gas and Electricity, for furnishing, delivering and laying water mains in Van Alst, Hoyt, Hopkins, Vandeventer, Potter, Third, Fifth, Sixth, Ninth, Eleventh and 14th Avs.; in Clark, Academy, Pearson, Davis and William Sts., and in Newtown Road, Long Island City; in Franconia, Brewster, Parsons, Madison, Smart and Laburnam Aves., in 21st, 22d, 23d, 26th, and in Barclay St., Flushing; in West Drive, Douglaston, in 16th and Fourth Aves., in Fourth and 27th Sts., in Boulevard and in Malba Drive, Whitestone; for hauling and laying water mains in several streets, and for furnishing and delivering screw taps, hydrant waste-cocks, hydrant handles, screws and bridges, hydrant catches and rollers, hydrant caps and chains, hydrant nozzles, wooden hydrant boxes, valve stanchion rods and lead-lined galvanized iron elbows and unions.

ALBANY, N. Y.—Bids were received as follows on May 3 by the Board of Contract and Supply: For furnishing hydrants, Eddy Valve Co., Waterford, N. Y., $6,470; Florence Iron Works, Philadelphia, Pa., $6,500; for furnishing gate valves, Eddy Valve Co., Waterford, N. Y., $3,810; Kennedy Valve Mfg. Co., Elmira, N. Y., $3,150; Florence Iron Works, Philadelphia, Pa., $3,856.

HOBOKEN, N. J.—The Governor has signed the bill authorizing this city to issue $35,000 of bonds to relay, enlarge and extend the water mains.

*ATLANTIC CITY, N. J.—Bids are asked until 2.30 p. m., May 28, by the Board of Water Commissioners for the construction of one brick or reinforced concrete smokestack at Absecon pumping station. L. Van Gilder is Engr. and Supt.

*EAST ORANGE, N. J.—All bids opened on April 12 by the city for 13,000 ft. of 6 to 1-in. water pipe have been rejected. New bids will be received until 8 p. m., May 24, for Byers guaranteed w.-i. pipe.

*READING, PA.—Bids will be received by the Board of Water Commissioners until 7.30 p. m., May 25, for furnishing and delivering 38,300 tons of filter sand. Specifications, instructions to bidders and blank proposals can be had by applying to Emil L. Nuebling, Supt. and Engr., Reading, Pa.

PARKERSBURG, W. VA.—Bids are asked by the city until 3 p. m., June 1, for the purchase of $270,000 of water bonds.

MOULTRIE, GA.—The citizens have voted to issue $25,000 of bonds for water improvements, $20,000 for sewers and $5,000 for street improvements. H. S. Jaudon, of Savannah, is Engr.

MILTON, FLA.—The Solomon-Norcross Co., of Atlanta, Ga., is preparing plans for water-works. W. J. Williams, Jr., is City Clk.

QUINCY, FLA.—The citizens on April 28 voted to issue $35,000 of bonds for water-works and improving the electric light plant, $25,000 for sewers and $10,000 for a school. Bids for construction work will probably be called for about May 15. George K. Palmer is Engr., Quincy.

*FORT MORGAN, ALA.—Bids will be received at the office of Capt. H. B. Chamberlain, Constructing Q. M., U. S. A., until 1.30 p. m., June 4, for the construction of two reinforced-concrete cisterns in accordance with plan and specifications and at the site designated at Fort Morgan.

BROOKSVILLE, MISS. — WALTER V. O'ROURKE, 614 Matheca Bldg., New Orleans, La., has been awarded contract for constructing water-works here.

NATIONAL SOLDIERS' HOME, TENN.—Bids are asked by Paul E. Divine, Treas., Mountain Branch, N. H. D. V. S., until noon, June 8, for the complete installation of a water-tube boiler in the power house.

MIAMISBURG, OHIO.—Bids are asked until noon, May 15, by the Trustees of Public Affairs, for furnishing and laying c.-i. pipe for extension of water mains, the work including 3,906 ft. of 4-in., 2,068 ft. of 6-in., 1,308 ft. of 8-in. pipe, seven 4-in. fire hydrants and one 6-in. fire hydrant, etc.

CINCINNATI, OHIO.—Bids will be received until June 1 by Ernest Von Bargen, City Audr., for $150,000 bonds, issued for improving and extending the existing water-works.

DAYTON, OHIO.—Contract for furnishing about 575 tons of water pipe was awarded by the Board of Public Service on April 28 to the U. S. CAST IRON PIPE & FOUNDRY CO., Rookery Bldg., Chicago, Ill., $15,125.

MASSILLON, OHIO.—Bids will be received by the Board of Trustees of the Massillon State Hospital, Massillon, until noon, May 25, for furnishing the materials and performing the labor necessary to install complete a new high pressure steam main and to make certain alterations in the boiler house of the Massillon State Hospital. H. C. Eyman, M. D., is Secy.

SOUTH BEND, IND.—The following bids were opened on April 27 by the city for constructing a 1,000,000-gallon concrete reservoir: H. N. Barnes, South Bend, $17,600; Nolf & Fellows, Kalamazoo, Mich., $17,276; E. BERNER & CO., South Bend, $16,890 (awarded contract). A. J. Hammond is City Clk.

HANCOCK, MICH.—The Board of Public Works on April 28 awarded contracts for water pipe to the U. S. CAST IRON PIPE & FOUNDRY CO., Rookery Bldg., Chicago, Ill., at $16,409, and for valves to the MARSHALL-WELLS HARDWARE CO., of Duluth, Minn., at $2,809.

ALBION, MICH.—Bids will be received until May 17 by W. R. Noyes, City Clk., for a reinforced concrete reservoir of 250,000 gallons capacity.

WAUKEGON, ILL.—The City Council on April 29 awarded contract to the FRED M. PRESCOTT PUMP CO., Milwaukee, Wis., for a 6,000,000-gallon pump, at $18,890.

CHICAGO, ILL.—Bids will be received by John J. Hanberg, Comr. Pub. Wks., until May 27 for furnishing material and installing in the Roseland pumping station, to be located at 104th St. and Stewart Ave., two vertical, triple-expansion, condensing, self-contained, crank and fly wheel pumping engines, each to have a capacity of 25,000,000 U. S. gallons per 24 hrs., including a 25-ton electric crane.

SILVIS, ILL.—Bids are asked until 10 a. m., May 27, by the Board of Local Improvements for the construction of a standpipe of 350,000 gallons capacity.

STATE CENTER, IOWA.—Bids will be received until May 21 by W. J. Whitehill, Town Clk., for furnishing and laying 2,650 ft. of water mains.

BEMIDJI, MINN.—The City Council on April 27 awarded contract for the erection of a steel tower and tank for the water system to the DES MOINES BRIDGE & IRON CO., of Des Moines, Iowa, at $6,328.

RED WING, MINN.—The citizens voted on April 26 to issue $35,000 for improving the water supply system.

HALSTEAD, KAN.—Bids will be received until May 25 by the city for the construction of water-works. Estimated cost, $35,000. Burns & McDonnell, Scarritt Bldg., Kansas City, Mo., are Engrs.

WINFIELD, KAN.—The citizens on April 27 voted to issue $65,000 of bonds for the purchase and improvement of water-works. G. W. Sloan is City Clk.

ST. LOUIS, MO.—The McCULLY CONSTRUCTION CO., of St. Louis, has secured the contract for constructing the pumping station at the City Insane Asylum at $35,650. Bids were opened on April 20 by the Board of Public Improvements.

The following are the lowest bids opened on April 20 by the Board of Public Improvements for work at City Insane Asylum. Boilers, John O'Brien Boiler Works, St. Louis, $12,146; pumping station, Laidlow-Dunn-Gordon Co., St. Louis, $7,635; tank, the Mississippi Valley Construction Co., $14,885. W. B. Dryden is Secy. Bd.

PLAINVIEW, TEX.—The contract for constructing water-works, bids opened on April 15, has been awarded to the AMERICAN LIGHT & WATER CO., Kansas City, Mo., at $32,000.

LAMAR, COLO.—Bids will be received, it is stated, until May 17 by C. W. Heaton, Town Clk., for constructing section 2 of pipe line from intake to reservoir, about nine miles, and a concrete reservoir.

OAKLAND, CAL.—Six bids for the delivery of material and installation of the pipe system for the auxiliary salt-water high-pressure fire plant under course of construction at the Willows on Lake Merritt were opened by the Board of Public Works on April 28 and referred to the City Engineer and City Attorney. It is estimated by the City Engineer that a total of 3,780 ft. of 14-in. mains will be required in the system. The bids follow: The Contra Costa Construction Co., $14,364; Williams & Belser, $13,230; Piedmont Paving Co., $14,790; C. D. Vincent, $13,873; Cotton Bros., $14,757; William Heafey, $11,983. In the 10-in. mains a total of 4,150 ft. will be required, according to the estimate. Bids for this work follow: The Contra Costa Construction Co., $9,960; Williams & Belser, $11,205; Piedmont Paving Co., $12,284; C. D. Vincent, $10,375; Cotton Bros., $10,665; William Healey, $9,296.

SALT LAKE CITY, UTAH.—The City Council on April 28 voted to lay about 25 additional blocks of water mains. Estimated cost, $37,081.

SALT LAKE CITY, UTAH.—We are officially advised that Zerbe & Walker submitted the only bid on April 30 to the Board of Public Service for constructing a screening tank at City Creek canyon. L. C. Kelsey is City Engr.

*PETERBOROUGH, ONT.—Bids will be received by S. R. Armstrong, Secy., Water Comrs., until June 14, for the manufacture and installation in place of one or two pumping units of capacity of 3,000,000 Imperial gallons each per 24 hrs. and water-works pumps, with turbine water wheels, etc., complete.

VANCOUVER, B. C.—Bids will be received by the City Clerk until 4 p. m., June 2, for the supply of water piping for the city for the current year. Specifications may be obtained from the City Engineer.

SEWERAGE.

(denotes that this work is advertised in Engineering News.)*

NORTH ANDOVER, MASS.—Contract for the construction of two miles of pipe sewers, bids opened on April 15, has been awarded to CHARLES G. CRAIB, 249 Pleasant St., Winthrop, at $16,056. Ernest W. Bowditch, 62 Devonshire St., Boston, is Engr. List of bidders noted on April 22.

NEW HAVEN, CONN.—Bids will be received until May 17 at the office of C. W. Kelly, City Engr., for the construction of a sewer in River and S. Front Sts.

ROCHESTER, N. Y.—The Council on April 27 adopted the report of the Street and Sewer Committee providing for the construction of the Bingham St. sewer. Estimated cost, $60,000.

POUGHKEEPSIE, N. Y.—The Board of Public Works has awarded contract to JAMES E. MARTIN, 33 Corliss Ave., at $4,442 for the construction of sewers in Livingston St., Lincoln Ave. and Jefferson St.

ELMIRA, N. Y.—The Board of Public Works has awarded contract to JOHN A. WALKER for the construction of a sewer in S. Broadway, from Fulton to Mt. Zoar Sts.

WATERLOO, N. Y.—The State Senate has passed the bill providing for the installation of a sewer system and sewage disposal plant.

NEW BRIGHTON (S. I.), N. Y.—Bids are asked until noon, May 18, by George Cromwell, Pres. Boro. of Richmond, for furnishing all the labor and materials required for constructing a temporary combined sewer, with the necessary appurtenances, through an easement in Lyman Ave., from Summer St. to Tompkins Ave.; in Tompkins Ave., from Lyman Ave. to Valley St., and in Valley St., from Tompkins Ave. to Duer Ave., all being within sewerage district No. 6-A, Fourth Ward, together with all work incidental thereto.

NEW YORK, N. Y.—Bids were received as follows on May 11 by Louis F. Haffen, Pres. Boro. of The Bronx, for constructing sewers and appurtenances in Valentine Ave., between East 198th and East 197th Sts., in East 197th St., between Bainbridge Ave. and Creston Ave.: Gore-Meenan Co., 206 Broadway, $7,314; John Farrel, $9,387; P. T. Brennan, $9,795; Wakefield Const. Co., $9,482; C. W. Collins, $9,290; Hanover Contg. Co., $9,652; Briggs & McLaughlin, $10,094; Alamo Construction Co., $10,861; D. W. Moran, $9,257; Ed. M. Lynch, $9,910; Haggerty Contracting Co., $10,417; V. Sullivan, $9,286; W. T. McKibben, $9,675.

NEWARK, N. J.—Edward S. Rankin, City Engr., is preparing plans for a storm water sewer system, about 6,500 ft. in length, ranging from 24-in. pipe to 3 x 9-ft. concrete. Bids will probably be asked in about one month.

FORT LEE, N. J.—ERNEST ABRAHAMS, of Hackensack, N. J., has been awarded contract at $6,826 for constructing a sewer in Main St., from Hudson Terrace to Hudson St. Ralph D. Earle, Jr., is Boro. Engr., Hackensack.

CARLSTADT, N. J.—NORCROSS & EDMUNDS, Penn Square Bldg., Philadelphia, Pa., have been awarded contract at $54,125, for constructing a system of sewers here.

LINDEN, N. J.—The citizens on April 27 voted to issue $35,000 of bonds for the construction of a sewer system. J. L. Bauer, of Elizabeth, is Engr.

*FORT HANCOCK, N. J.—Bids are asked until 2 p. m., May 28, by Lieut. W. J. Hawkins, Constructing Q. M., U. S. A., for constructing a sewer outlet here.

HAZLETON, PA.—The borough contemplates constructing two storm terra cotta and one concrete sewer. S. J. Hughes is Boro. Clk.

ERIE, PA.—Contract has been awarded by the city to DWYER & WOLFRAN, Erie, for constructing a 12-in sewer in 27th St., a 9-in. sanitary sewer in Cherry and Second Sts., and a 9-in. sewer in Plum St.

EDWARD DRISCOLL secured the contract for a 9-in. sewer in Liberty St., and contract for two 9-in. sanitary sewers in Liberty St. Benjamin E. Briggs is City Engr.

*INDIANA, PA.—Bids are asked until 7.30 p. m., June 1, by the Borough for the construction of a sewage purification works. T. J. I. Pealer is Boro. Engr.

GEORGETOWN, DEL.—Plans are reported to have been completed for the construction of a sewerage system here.

WASHINGTON, D. C.—The Commissioners of the District of Columbia have awarded contracts for the construction of sewers in the District of Columbia to WARREN F. BRENIZER CO., Washington, for which bids were opened April 26 as follows: Trunk sewer in valley north of R St., excavation, 59 cts.; sewer brick masonry, $13.50; 24-in. pipe, $1.14; 21-in. pipe, $1; 18-in. pipe, 90 cts.; extension of Luzon Ave. sewer to Georgia Ave., excavation, 65 cts.; sewer brick masonry, $15; 18-in. diameter sewer pipe, 91 cts.; Fall Branch sewer, excavation, 70 cts.; sewer brick masonry, $15; 18-in. diameter pipe, 91 cts.; Fourth St. relief sewer, excavation, 75 cts.; sewer brick masonry, $13; vitrified brick masonry, $20; concrete masonry "D," $7.71. List of bidders noted on April 29.

MANNING, S. C.—All bids have been rejected for the construction of sewers, bids opened on April 29. No date has yet been decided upon when new bids will be received.

MARIETTA, GA.—Bids will be received by the Mayor and Council until 3 p. m., June 1 for furnishing material and constructing a sanitary sewer system for the city. The system will embrace approximately eleven miles of pipe sewers from 8-in. to 10-in. diameter, with the necessary manholes, flush tanks, lamp holes, etc. Plans, profiles and specifications may be seen at the office of W. T. Black, City Clk., and copies of the specifications, forms, etc., may be obtained from J. M. McCrary & Co., 1302 Empire Bldg., Atlanta, Ga., Engineers, or the City Clerk.

CLEARWATER, FLA.—Bids will be received by the Town Council until June 1 (extension of date) for constructing a complete system of sewers.

*LOUISVILLE, KY.—Bids are asked until noon, May 28, by the Commissioners of Sewerage for the construction of Crescent Ave. sewer, Contract 40, of the comprehensive system of sewerage for the city.

OBERLIN, OHIO.—Bids are asked until noon, May 22, by the Village Clerk for material and constructing a sewage disposal plant. The work includes 7,000 cu. yds. excavation, 475 cu. yds. concrete, 2,500 cu. yds. brushed stone, filtering material, 2,000 cu. yds. of sand for sand beds, 445 lin. ft. of 18-in., 370 lin. ft. of 12-in., 584 lin. ft. of 10-in., 1,080 lin. ft. of 6-in. vitrified pipe, and 15 valves.

VAN WERT, OHIO.—Bids will be received by the County Supervisors until May 18 for constructing concrete sewers.

COLUMBUS, OHIO.—The City Engineer estimates the cost of continuing the construction of the Markison Ave. sewer from old canal to the river, about 1,400 ft., at $9,000. It is proposed to build the outlet of concrete, with a pressure lid to prevent the canal filling with water when the river is high.

ANGOLA, IND.—Bids are asked by the Common Council until 7.30 p. m., May 21, for the construction of one main sewer and a disposal plant. Roy Hirst is City Clk.

RICHMOND, IND.—Bids are asked until May 26 by the city for 5,350 ft. of 54 to 12-in. sewers, average cut, 10 ft. Estimated cost, $20,000. Fred R. Charles is City Engr.

CARLYLE, ILL.—The city contemplates constructing 6, 8, 10 and 18-in. sewers in 15 streets. F. August Sietz is City Engr.

OSHKOSH, WIS.—Bids are asked until 2 p. m., May 15, by the Board of Public Works, W. A. Marden, Chn., for constructing eight sewers.

CLEAR LAKE, IOWA.—Bids will be received until 3 p. m., May 17, by the city for constructing five miles of sewer. Burns & McDonnell are Engrs., Scarritt Bldg., Kansas City, Mo.

ALBERT LEA, MINN.—Bids will be received until June 10 by the city for the construction of pipe and brick or concrete sewers as follows: 2,495 lin. ft. of 15-in pipe sewer; 110 lin. ft. of 40 x 48-in. reinforced-concrete sewer; 243 lin. ft. of 15 x 48-in. horseshoe shaped; 1,140 lin. ft. of 12 x 36 x 48-in. egg shaped; 497 lin. ft of 12 x 33 x 44-in. egg shaped double sewer; concrete outlet, concrete inlet, inverted siphon, sewage lift, nine manholes, etc.

BILLINGS, MONT.—The lowest bid opened on April 23 for constructing sewers in sewer districts Nos. 31 and 32 was submitted by A. T. Edwards at $10,911.

COLORADO SPRINGS, COLO.—SHELBY HARE has been awarded contract at $5,290 for sewer extensions here. E. C. F. Whitaker is City Clk.

LAS ANIMAS, COLO.—Bids will be received until 2 p. m., May 24, by Francis Cahill, City Clk., for a sanitary sewer, requiring about 45,793 lin. ft. of 8, 10, 12 and 15-in. sewer pipe, 7,000 lin. ft. ¾-in. galvanized pipe, three 850-gallon and 26 300-gallon flush tanks, etc. Estimated cost, $48,757. G. H. Sethman is Engr., 1515 Tremont Pl., Denver; W. R. Murphy is City Engr.

CARLSBAD, N. MEX.—Bids are asked until noon, May 24, by J. B. Harvey, City Clk., for constructing a complete sanitary sewer system. Burns & McDonnell are Engrs., Scarritt Bldg., Kansas City, Mo.

BELLINGHAM, WASH.—FREDERICK McELMON, Bellingham, has been awarded contract at $14,230 for constructing the Eldridge Ave. trunk sewer. F. B. Graves is City Controller.

SEATTLE, WASH.—Bids are asked by the Board of Public Works until May 28 for the construction of the North Trunk sewer. Approximate list of quantities are on file at the office of Engineering News, New York. R. H. Thomson is City Engr.

WHITTIER, CAL.—Sewer bonds for $110,000 were sold on April 20 for the construction of a sewer system and for a sewer farm. Bids not yet called for construction. A. W. Tryce is City Engr.

PROVO, UTAH.—Bids are asked until 1 p. m., May 18, by E. A. Jacob, City Engr., for the construction of 8,500 ft. of vitrified clay sewer in district No. 10.

ST. THOMAS, ONT.—Bids will be received until May 18 by the city for constructing a sewage disposal plant. James A. Bell is City Engr.

YORKTON, SASK.—Bids will be received until May 24 by the town, for the construction of sewers as follows: 2,000 ft. of 12-in., and 15,000 ft. of 8-in., with all necessary appurtenances. F. T. McArthur is Town Engr.

STREETS AND ROADS.

(denotes that this work is advertised in Engineering News.)*

FORT McKINLEY, ME.—Bids will be received until May 18 by Captain F. J. Morrow, Constructing Q. M., U. S. A., Portland, for constructing a Road at Fort McKinley.

HARTFORD, CONN.—Plans have been received at the office of the State Highway Commissioner from R. E. Mitchell, Engr., for several sections of state road work, aggregating 4,400 lin. ft.

NEW HAVEN, CONN.—All bids for furnishing and laying granite block pavements on Crown and Fair Sts. have been rejected.

ALBANY, N. Y.—Bids are asked until 3 o'clock p. m., May 17, by the Board of Contract and Supply for the following work: For improving a portion of Clinton Ave., the work including grading, curbing and paving the carriageway with vitrified paving blocks and sod, building receiving basins, forming grass plots and laying sewers under the sidewalks; also, for the improvement of a portion of Main Ave., the work including grading the street, setting granite curb, paving the carriageway with pressed vitrified paving blocks on a concrete foundation, laying sidewalks of flags, vitrified bricks and sod, building receiving basins and laying vitrified pipe sewers and appurtenances under each sidewalk; also for excavating, filling and forming a portion of Mercer St., including culverts and ditches necessary for the drainage of surface water and in building any retaining walls made necessary to keep side slopes from encroaching on adjacent land; also, for laying a 12-in. vitrified stoneware pipe sewer under the north sidewalk of Jay St. from the sewer in Jay St. at Dove St., about 250 ft. west of the west line of Dove St., the construction of the sewers, including the necessary bends, branches, house connections, manholes and other appurtenances. Isidore Wachsman is Secy. Bd. Walter Melius is City Engr.

ALBANY, N. Y.—The Assembly has passed the bill providing for the appropriation of $1,500,000 for the repair and maintenance of improved highways and $5,000,000 for highway improvement purposes.

BROOKLYN, N. Y.—Bids are asked by the Park Board, Fifth Ave. and 64th St., Manhattan, until 3 p. m., May 20, for furnishing all the labor and materials necessary to repair asphalt pavements on Glenmore Ave., Eastern Parkway extension, and at the entrances to Prospect Park, Boro. Brooklyn.

BROOKLYN, N. Y.—Bids are asked until 11 a. m., May 26, by Bird S. Coler, Boro. Pres., for regulating and repaving with asphalt, asphalt block and granite on a concrete foundation the roadways of various streets; and for cement sidewalks and grading lots.

NEW YORK, N. Y.—The following are the bids opened on May 3 by John F. Ahearn, Boro. Pres., for regulating and repaving with sheet asphalt pavement on concrete foundation Morningside Ave. east from 114th St. to Manhattan St., including 18,450 sq. yds. of asphalt pavement, binder course, 3,340 cu. yds. Portland cement concrete, 3,950 lin. ft. new bluestone curb, etc.: Asphalt Construction Co., 206 Broadway, $44,564; Barber Asphalt Co., 30 Church St., $42,318; Standard Asphalt & Rubber Mfg. Co., 115 Broadway, $46,510; Sicilian Asphalt Pavement Co., 41 Park Row, $46,705; Uvalde Asphalt Pavement Co., 1 Broadway, $47,723.

The following are lowest bids opened on May 3 by John F. Ahearn, Pres. Manhattan Boro., for repaving on a concrete foundation: Barber Asphalt Pavement Co., 30 Church St., for paving Hudson St., from Chambers to Beach St., with wood block pavement, $51,901; Eldridge St., from Division St. to Houston St., sheet asphalt, $22,983; Rivington St., from Cannon St. to Bowery, with sheet asphalt, $37,030; 26th St., from First Ave. to Madison Ave., $25,532; the Harlem Contracting Co., 2 Rector St., for paving Fort George Ave., from Amsterdam Ave. to St. Nicholas Ave., with asphalt block, $23,682.

NEW YORK, N. Y.—Bids are asked by the Park Board until 3 p. m., May 27, for all labor and materials required for all excava-

tions, blasting, grading and granite and asphalt block paving, for an entrance road from Ninth Ave. to and under the new south wing of the west facade, also building embankment walls and new areas and lowering and rebuilding road in rear of above wing, for the American Museum of Natural History, Manhattan Square, Boro. Manhattan; for furnishing and setting new curbstones in the parks on Broadway, between 96th and 110th Sts., Boro. of Manhattan.

NEW YORK, N. Y.—The following bids were received on May 11 by Louis F. Haffen, Pres. Boro. of the Bronx, for paving with asphalt blocks and with granite blocks on a concrete foundation the roadway of Broadway from Spuyten Duyvil Creek to the north line of the city and setting curb where necessary: Hastings Pavement Co., 25 Broad St., $215,154; Barber Asphalt Paving Co., 30 Church St., $229,473.

The following bids were received at the same time for regulating, grading, setting curbstones and flagging the sidewalk, placing fences, etc., in Mosholu Parkway, north from Perry Ave. to Jerome Ave., Boro. of the Bronx: D. W. Moran, 563 Burnside Ave., $39,570; C. W. Collins, Morris Ave. and Fordham Rd., Bronx, $33,637; Wakefield Construction Co., 39 East 122d St., $44,222; T. Sullivan, $33,900; John B. Malatesta, 3169 Jerome Ave., Bronx, $35,653; P. J. Duffy, $33,671.

Bids were received at the same time for paving West 259th St., between Broadway and Riverdale Ave., Boro. of the Bronx: Gore-Meenan Co., $29,022; P. T. Brennan, $30,835; Wakefield Construction Co., $25,502; C. W. Collins, $28,043; Hanover Contracting Co., $28,245; Briggs & McLaughlin, $28,789; Alamo Construction Co., $30,796; Haggerty Contracting Co., $33,529; J. J. Hauduvan, $27,633; Geo. Brown, $31,313; W. S. Stettor, $31,177; Dunbar Construction Co., $41,735; O'Leary & Flanigan, $26,686.

Also for regulating, grading, etc., on Edenwalk Ave., between East 233d St. and the boundary line between New York and Mount Vernon, Boro. of the Bronx. John B. Malatesta, 3169 Jerome Ave., Bronx, $34,469; Wakefield Construction Co., 39 East 122d St., $38,998.

UTICA, N. Y.—The Barber Asphalt Paving Co., 131 Union St., submitted the only bid on April 27, it is stated, to the Board of Contract and Supply for paving with asphalt portions of Jay, Square, Fulton Sts. and Kernan Ave., at $1.94 per sq. yd. Estimated cost of improvement, about $18,000.

SYRACUSE, N. Y.—Henry C. Allen, City Engr., has estimated the cost of resurfacing a portion of N. Salina St. as follows: Asphalt, $22,535; sandstone or creosoted wood block, $61,650; vitrified brick or block, $40,030; macadam, $15,880.

SCHENECTADY, N. Y.—The SCHENECTADY CONTRACTING CO. has been awarded contract for paving Wright Ave. with asphalt at $2.20 per sq. yd.

ROCHESTER, N. Y.—The Board of Contract and Supply on April 22 awarded contracts for paving as follows: N. Water St., with Medina, block, to F. C. LAUER & SONS CO., 458 S. Clinton Ave., $29,537; Edward St., with brick, to CLARENCE AIKENHEAD, at $5,246; Flower City Park, with asphalt, to WHITMORE, RAUBER & VICINUS, 279 South Ave., at $20,469.

The Board of Contract and Supply on April 30 awarded contracts for paving as follows: WHITEMORE, RAUBER & VICINUS, 279 South Ave., asphalt on Plymouth Ave., $35,589, and asphalt on Culver Road, $15,744; ROCHESTER VULCANITE PAVING CO., Alexander St. and Erie Canal, with asphalt and Medina block, $22,768; H. N. COWLES, 6 Gorsline St., brick and macadam on Lake View Park, $18,728; HENRY C. SCHROEDER, with brick, Mt. Vernon Ave., $18,960.

FULTON, N. Y.—We are officially advised that SIMPSON & WILLIS CO., Erie, Pa., have been awarded contract by the city, at $64,517, for street paving here. Bids were opened on May 3. O. C. Breed is City Engr.

LONG ISLAND CITY (L. I.), N. Y.—Bids are asked by Lawrence Gresser, Pres. Boro. of Queens, until 11 a. m., May 24, for regulating, grading, curbing, flagging, reflagging and recurbing and for paving with asphalt blocks the roadways of various streets.

RENSSELAER, N. Y.—Bids were received by John G. Salt, City Clk., on May 4th, as follows: For paving Harrison Ave. with 1,210 sq. yds. of granite blocks, Wiltsie & Rigney, Rensselaer, $6,016; M. F. Dollard, Albany, N. Y., $5,462; Mulderry Bros., Albany, $5,414. For paving Second St. with 2,575 sq. yds. brick pavement, Wiltsie & Rigney, Rensselaer, $7,826; M. F. Dollard, Albany, $7,403; Mulderry Bros., Albany, $7,568. For paving Washington Ave. with 4,330 sq. yds. of granite blocks, Wiltsie & Rigney, $17,467; M. F. Dollard, $16,051; Mulderry Bros., $17,133; M. Kantrowitz, Albany, $14,971. For paving Glenn St. with 2,304 sq. yds. of granite blocks, Wilsie & Rigney, $9,365; M. F. Dollard, $8,424; Mulderry Bros., $8,414.

CAMDEN, N. J.—Bids will be received until May 18 by Edward Francis, Chn. Com. on Sts. and Highways, for paving Chestnut, Lemon, Lawrence and Eighth Sts., with sheet asphalt, and Mt. Ephraim Ave. and Louis St. with Belgian block.

PATERSON, N. J.—It is proposed to expend this year $68,574 for asphalt paving; $31,475 for wood block and $5,390 for granite block. H. J. Harder is City Engr.

*BAYONNE, N. J.—Bids will be received by the Council until 8 p. m., May 18, for all of the labor and material for the improvement of 18th St., from the Boulevard to Broadway; 26th St., from Ave. A to the Boulevard, and from Broadway to Ave. E, and 30th St., from the Boulevard to Ave. E. There will be required about 18,700 sq. yds. of asphalt paving, together with curbing and other appurtenances. W. C. Hamilton is City Clk.

SWISSVALE, PA.—Plans will be prepared the latter part of this month by the Borough Engineer for grading and paving various streets at a total cost of $75,000. W. J. Cupples is Borough Engr. The contracts will be awarded early in June, and work completed this summer and fall.

EAST CONEMAUGH, PA.—Contract for paving Main, Locust and other streets, bids opened on April 27, has been awarded to the THEILE CONSTRUCTION CO., Johnstown, at about $10,400, the borough to furnish the brick. O. P. Thomas, Otto Bldg., Johnstown, is Boro. Engr.

*KINGSTON, PA.—Contract for 15,000 sq. yds. of brick paving, bids opened on May 3, has been awarded to BOLTON G. COON, 610 Second National Bank Bldg., Wilkes-Barre, at $34,927. Young & Wintermute, Second National Bank Bldg., Wilkes-Barre, are Engrs.

ALLENTOWN, PA.—The Commissioners of Lehigh County have awarded contract to rebuild the Bethlehem Pike to GEORGE H. HARDNER, of Allentown, at $32,450. Other bidders were Edwards Bros. & Co., Yardley, $71,145; George H. Clader, Allentown, $34,936; Weaver Contracting Co., Allentown, $36,022. The pike will be 3¼ miles in length of trap rock. There will be 1,000 ft. of concrete box gutters and 16,000 ft. of stone gutters.

*SCOTTSDALE, PA.—Bids will be received by F. W. Newcomer, Council Secy., until 8 p. m., May 27, for grading, curbing and paving Market St., from the west side of Broadway to the west side of Grove St. J. B. Hogg is Boro. Engr., Connellsville, Pa.

KNOX, PA.—NORMAN J. BOYER, Butler, Pa., has been awarded contract for about 5,000 sq. yds. of vitrified block paving here, being the lowest of ten bidders.

MONONGAHELA, PA.—FRANK ROBINSON and JOHN HISCOX, both of Monongahela, have been awarded contract by the Fort Pitt Bridge Co., which has the general contract for the new bridge across the Monongahela River here, for 1,300 sq. yds. of brick paving, 3,000 cu. yds. of filling and 1,200 cu. yds. of grading at the approaches to this bridge. The work will be started as soon as the concrete abutments are completed. This latter work, as well as the river piers, is being done by the Dravo Contracting Co., Lewis Block, Pittsburg.

*WASHINGTON, D. C.—Bids will be received by the Commissioners of the District of Columbia until 2 p. m., May 27, for furnishing the District Government during the fiscal year ending June 30, 1910, granite curbing, asphalt paving blocks, repressed vitrified paving blocks, red sewer bricks, terra cotta sewer pipe, Portland cement, miscellaneous castings, sand and gravel.

ARLINGTON, VA.—Bids were received as follows on May 5 at the office of the Depot Quartermaster, U. S. A., Washington, D. C., for the construction of a macadamized road in the National Cemetery, Arlington, Va.. Lyons Bros., Brookland, D. C., macadam, per sq. yd., 69 cts.; gutters repairing, per lin. ft., 20 cts.; new gutters, per lin. ft., 40 cts.; W. B. Bradley & Co., Washington, D. C., macadam, 83 cts.; repairing gutters, 24 cts.; Thomas A. Barry, Richmond, Va., macadam, 88½ cts.; repairing gutters, 19 cts.; new gutters, 23 cts.

FORT MONROE, VA.—Bids will be received until 10 a. m., May 28, by Capt. E. R. Tilton, Constructing Q. M., U. S. A., for filling, grading, surfacing and constructing concrete walks, brick gutters and macadam roads around new buildings at Fort Monroe, Va.

JACKSON, TENN.—The city will let the contract for improvement district No. 6 at the meeting of the Board of Mayor and Aldermen on June 1. The district is over a mile long and involves the laying of concrete curb and gutter and concrete walks. Approximate list of quantities are on file at the office of Engineering News, New York.

CIRCLEVILLE, OHIO.—Bids will be received by the Board of Public Service, Frank McGinnis, Clk., until May 18, for paving Scioto St. with brick, about 8,700 sq. yds., and for cement sidewalks on said street.

CINCINNATI, OHIO.—Bids will be received by the Board of County Commissioners, Fred Dreihs, Clk., until May 28, for extending Hillside Ave., Delhi Township, as per Specification No. 905.

GIRARD, OHIO.—Bids will be received until May 17 by John Howells, Clk., Liberty Township, Girard, for macadamizing section No. 1, Township Line and Loys Corners roads, and section No. 2, Church Hill and State St. roads, in all 7,390 lin. ft.

MARIETTA, OHIO.—Bids will be received until May 18 by the Board of Public Service, James F. Hovey, Clk., for paving Greene St. with brick block, requiring 7,681 sq. yds. of paving, 4,427 ft. curb, etc. E. Frank Gates is City Engr.

SANDUSKY, OHIO.—Bids will be received by B. J. McGory, Clk. Bd. Pub. Ser., until May 17, for paving Jackson St., material to be selected when bids are opened. Estimated cost, $18,000. C. M. King is City Engr.

CLEVELAND, OHIO.—Bids will be received until May 24 by the Board of County Commissioners, William F. Black, Clk., for grading, draining and improving Irish Road, Middleburg and Olmsted Townships.

Bids are asked until May 21 for improving East Lake Road, Euclid Township. A. B. Lea is County Surv.

COLUMBUS, OHIO.—Bids will be received at the office of the Commissioners of Huron County, Ohio, until noon, May 18, for grading and macamadamizing 1.78 miles of road in Norwich, Sherman and Peru Townships.

YOUNGSTOWN, OHIO.—James Colucci, of Youngstown, is low bidder for the construction of the Bear's Den road outside this city, at $7,561. G. W. Ripple, of Youngstown, was next with $7,597. Contract will be awarded soon.

CADIZ, OHIO.—We are officially advised that ROSSER & MALONEY, of Bellaire, Ohio, have been awarded contract, at $16,258 for street paving here. Bids were opened on May 5. The Riggs & Sherman Co., Toledo, Ohio, are Engrs.

BROOKVILLE, IND.—Bids are asked by the Commissioners of Franklin County until 1 p. m., June 7, for the construction of 9,800 ft. of gravel road, including draining, bridging, etc., on line between Brookville and Highland Townships. C. A. Miller is County Audr.

VINCENNES, IND.—Bids are asked by the Commissioners of Knox County until 2 p. m., June 8, for the construction of 14,057 ft. of gravel road in Johnson Township and 13,900 ft. of gravel road in Steen Township. J. T. Scott is County Audr.

VERNON, IND.—Bids are asked by the Commissioners of Jennings County until 10 a. m., June 7, for the construction of 1½ miles of pike road in Geva Township. T. Thomas is County Audr.

LIBERTY, IND.—Bids are asked by the Commissioners of Union County until 2 p. m., June 7, for the construction of a gravel road in Center Township known as C. L. Beard road, and a gravel road in Union Township, known as the J. A. Orr road. Clinton Gardner is County Audr.

EVANSVILLE, IND.—Plans and specifications have been ordered for improving the following streets by grading, curbing, guttering and paving with asphalt: Oakley St., from Franklin St. to Illinois St.; Jefferson Ave., from Garvin to Linwood Sts., and Adams St., from Garvin to Linwood Sts. The Board of Public Works will ask for bids as soon as plans are completed. W. F. Wunderlich is City Clk.

BLUFFTON, IND.—The Commissioners of Wells County have awarded contracts for the construction of gravel roads as follows: Turner road, Notingham Township, to L. O. BEARS, $3,543; Addington road, Harrison Township, to S. D. Iler, $4,491; Montgomery road, Chester Township, to ADDINGTON & HUFFMAN, $3,110; Scott road, Union Township, to CROSBY & MILLER, $3,753; Accord road, Notingham Township, to S. D. ILER, $2,497; Bears road, Harrison Township, CROSBY & SON, $5,745.

BRAZIL, IND.—The Commissioners of Clay County have awarded contracts for the construction of gravel roads as follows: The Brothers road, to HAWKINS BROS., at $7,840; the Romas road, to CRABB & CAMPBELL, at $5,547.

HARTFORD CITY, IND.—Contract for 5,552 ft. of macadamized road in Washington Township, bids opened on May 3, has been awarded to S. P. WILLMAN, of Hartford City, at $3,777. L. W. Daugherty is County Audr.

EAST ST. LOUIS, ILL.—We are officially advised that contract has been awarded to the MYERS CONSTRUCTION CO. for paving a portion of First St., at $6,947. Bids were opened on May 5.

MILWAUKEE, WIS.—The Board of Public Works has awarded contract for paving Fowler St., from West Water St. to the Milwaukee River, with brick, to W. T. McGOVERN, Milwaukee, at $1.93 per sq. ft.

NORTH MILWAUKEE, WIS.—Bids are asked by the Village Board until May 17 for constructing 30,000 sq. ft. of cement sidewalk. Emil H. Klamp is Village Clk.

MINNEAPOLIS, MINN.—The County Comrs. have decided, it is stated, to construct a granite macadam wagon road from Minneapolis to New Brighton and the Armour plant.

LAWRENCE, KAN.—We are officially advised W. W. Gilmore, Topeka, Kan., submitted the lowest bid on May 3 to the city for grading, curbing and paving Tennessee, Ohio and other streets at $34,693. F. D. Brooks is City Engr.

GRAND ISLAND, NEB.—About $70,000 will be expended for brick paving here, for which specifications are now being prepared by Jay C. Tefler, of Grand Island. H. E. Clifford is City Clk.

ST. CHARLES, MO.—Bids will be received by Carr Edwards, City Engr., until May 15 for constructing 38,768 sq. ft. of granitoid sidewalk and 10,415 lin. ft. curb and gutter combined.

FRESNO, CAL.—The WORSWICK STREET PAVING CO. has secured the contract, it is stated, for paving portions of I and L Sts., at $33,000.

SAN JOSE, CAL.—Contract for 9,307 sq. yds. of bituminous paving has been awarded to the CITY STREET IMPROVEMENT CO., Mercantile Exchange Bldg., San Francisco, at $23,708. C. W. Pieper is City Engr.

SALT LAKE CITY, UTAH.—We are officially advised that P. J. MORAN has been awarded the following contracts: For paving extension No. 52, at $35,838; No. 30, at $34,380; No. 44, at $12,015; No. 46, at $5,327. L. C. Kelsey is City Engr.

MONTREAL, QUE.—The Roads Committee have awarded contract to the WARREN PAVING CO., at $25,500, for an asphalt plant.

MANUFACTURING PLANTS.

BRIDGEPORT, CONN.—The Warner Bros. Co., of Bridgeport, manufacturers of corsets, is planning for new construction which will involve an expenditure of nearly $200,000 and which will double the capacity of the plant. The buildings will be of brick and of fireproof construction. A feature of the improvements will be a central heating plant with a capacity of 1,000 HP.

The Standard Mfg. Co., of Bridgeport, makers of machinery and metal novelties, will erect an additional 3-story brick factory at its plant on Housatonic Ave.

WATERBURY, CONN.—The A. H. Wells Co., of Waterbury, manufacturers of brass goods, will begin at once the construction of an additional brick factory, 40 × 100 ft., 1-story high, with basement.

WEST CHESHIRE, CONN.—Work on the erection of a factory to replace the one recently destroyed by fire will be immediately undertaken by the Cheshire Brass Co., of West Cheshire. The plans call for a 1-story brick building, 75 x 100 ft.

NEW HAVEN, CONN.—The Mayo Radiator Co., of New Haven, manufacturers of automobile radiators, has had plans drawn for a large addition to its plant. The main building will be a 1-story brick structure, 150 × 300 ft., and there will be a 1-story brick building, 40 × 60 ft., which will be used for a box shop.

NORTH TONAWANDA, N. Y.—We are officially advised that the DUROLITHIC CO., 460 Ellicott Sq., Buffalo, N. Y., has been awarded the contract for erecting the dry kilns, glue building, coal bunker, reservoir, and 4-story factory building, 80 × 322 ft., the work completed excepting elevators, and all of reinforced concrete, for the Rudolph Wurlitzer Mfg. Co., of North Tonawanda, N. Y.

NIAGARA FALLS, N. Y.—The William A. Rogers Co., Ltd., has had plans prepared and is receiving bids for a 3-story and basement stone, brick and steel addition to its plant at Main and Mill Sts., for the manufacture of silver-plated ware. The buildings, 76 × 180 ft., 3-story and 46 × 296 ft., 1-story, will have 65,000 ft. of floor space, also a tower 100 ft. high. Cost, $10,000.

BUFFALO, N. Y.—The Corrugated Bar Co. will build a plant at Maple Ave. and the Lake Shore R. R., South Buffalo, for the manufacture of reinforcing bars for concrete. The main building will be 60 × 300 ft., of concrete and steel.

CORTLAND, N. Y.—The Empire Corset Co. has had plans and specifications prepared and will receive bids soon for an addition to its plant in this village.

LYONS, N. Y.—Dillman Bros., of Geneva, N. Y., will erect a canning factory on Depew Ave. here under the name of the Seneca Kraut & Pickle Co. The main building will be 50 × 175 ft., two stories, frame, with another building nearly as large. They are to be completed Aug. 1.

NEW YORK, N. Y.—The general contract for the reconstruction of the car barns for the Second Avenue Railroad Co., on the east side of Second Ave., between 96th and 97th Sts., at a cost of about $300,000, has been awarded to CHARLES H. PECKWORTH, of 415 Hudson St. Plans prepared by Maynicke & Franke, Archs., 298 Fifth Ave., call for using the old foundations, and a building measuring 201 × 482 ft., three stories, of reinforced concrete and brick.

DUNKIRK, N. Y.—It is reported that the American Locomotive Co. is to build a tank shop and paint shop here to cost about $100,000, in addition to the boiler shop, construction of which is now under way.

JERSEY CITY, N. J.—Plans have been prepared by Hugh Roberts, Arch., 1 Exchange Pl., for a 5-story addition, 55 × 140 ft., to be erected to the plant of the New Jersey Paint Works at Wayne and Fremont Sts.

PUNXUTAWNEY, PA.—It is stated the United Textile Corporation will build a silk mill here this summer.

YORK, PA.—Frank and Arthur Reeser, Herman Shetter and Heilig Bros. have organized a company here and will manufacture cotton and woolen fabrics. The capitalization will be $25,000. A plant will be erected along the Western Maryland R. R. in West York Borough. It is to be completed and ready for operation in about three months.

LEWISTON, PA.—The erection of a silk mill at Lewiston, Pa., is contemplated by the Susquehanna Silk Mill Co., and ground will be broken for the new building at once. It will be 300 × 200 ft.

PHILADELPHIA, PA.—The Ivins, Dietz & Metzger Co., carpet manufacturers, Philadelphia, have purchased the mill properties at the northeast corner of Huntington and Seventh Sts. A 5-story reinforced-concrete manufacturing building, 184 × 210 ft., will be erected on the property. Plans for the same are now being prepared. The new mill calls for an expenditure of $150,000, while $100,000 will be used in equipping the same.

NEWTOWN, PA.—The Newtown China Co., recently organized, will build a pottery plant here. Frank C. Locke is Secy. and Gen. Mgr.

SPARROW POINT, MD.—E. C. Felton, Pres. of the Pennsylvania Steel Co. of New Jersey, a holding company which controls the Pennsylvania Steel Co., the Maryland Steel Co., at Sparrows Point; the Spanish-American Iron Co., in Cuba, as well as one or two other smaller concerns, in his annual report, which has just been made public, announced that work on the erection of an open-hearth plant at the works of the Maryland Steel Co., at Sparrows Point, will be started immediately.

DANVILLE, VA.—Contracts for Cotton Mill No. 3, and for Cloth Mill No. 2 for the Dan River Power & Mfg. Co., has been awarded to JOHN T. WILSON & CO., of Richmond, Va. The contract calls for an expenditure of $350,000, and when completed the mills at Danville will be the largest cotton and cloth mills in the South. The cotton mill will be 300 ft. wide, 550 ft. long and four stories high. The buildings are to be completed by Jan. 1 of the coming year. Mr. Wilson will give personal supervision to the construction of this building and will go to Danville at once to begin operations. Lockwood, Green & Co., 93 Federal St., Boston, Mass., are Engrs.

HILLSBORO, N. C.—The Bellevue Mfg. Co., Hillsboro, N. C., has awarded contract to J. D. McADAMS, of Elon, N. C., for the erection of an addition to be equipped with 200 looms for manufacturing fancy ginghams. The new building will be a weave room, one story, 75x100 ft., and will be completed this month. Contract for the weaving machinery has been awarded to the CROMPTON & KNOWLES LOOM WORKS, of Worcester, Mass. The Bellevue plant now operates 5,000 spindles.

DURHAM, N. C.—The contract for the proposed Erwin Mill No. 4, at West Durham has been let to the FISKE-CARTER CONSTRUCTION CO., of Worcester, Mass.

Building will begin at once and it is the hope of the owners of the mill that it will be completed by the latter part of the year. This done, it will require another four months or thereabout to put down the machinery and get ready for the work. The construction work to be done immediately will be the main buildings which are composed of the weaving room, spinning room and picker house. These will require about 5,000,000 bricks. They go into a 1-story structure 825 ft. long, having a weaving room 300 ft. wide and spinning room 200 ft. There are between five and six acres of floor space in this plant and the time required in its erection is eight months.

FOREST CITY, N. C.—A company has been organized to build a knitting mill in this city. It will install ten hosiery machines and a gasoline engine. G. P. Reid is Pres.; Cyrus Wilkie, Secy., and W. W. Hicks, Treas.

MARION, N. C.—The Marion Mfg. Co., of Marion, N. C., will erect a mill, to be equipped with 12,500 ring spindles, 300 looms, etc., for manufacturing brown sheetings. The contract has been let to EBAUGH & EBAUGH, of Greenville, and work is to be completed in five months. This company is capitalized at $250,000 and was incorporated recently. D. D. Little, of Spartanburg, S. C., is Pres. and Treas.

MEMPHIS, TENN.—The Memphis Boat Mfg. Co. has been organized here and has purchased a site on Wolf River, just above the city, for a boat building plant.

The Covington Milling Co. has filed articles of incorporation with the Secretary of the State of Tennessee. The capital stock is $10,000, but the company is given the privilege of increasing this as its business may require. A building will be erected at once and the machinery of the Tipton Flouring Mills, which recently failed, will be installed therein. Daniel Fyfe, Sr., is Pres., and P. W. Williams is Vice-Pres. and Gen. Mgr.

TOLEDO, OHIO.—The General Electric Co. is asking for bids on the foundations for its proposed reinforced-concrete building which is to be erected on the Mulberry St. property to be vacated by the city. According to the plan for the foundation, the building is to be 82 × 302 ft. in dimensions. The plans call for concrete footings in the center with a foundation retaining wall. As the portion of Mulberry St. to be vacated makes a dip of 15 or 20 ft. below grade, there will be little or no excavation work to be done for the foundation. It is understood that the reason the General Electric Co. is asking only for bids on the foundation is because the plans for the building proper have not been completed. These plans, however, will be ready for the contractors by the time the foundation is in. H. B. Rodgers is Gen. Mgr., Lamp Dept., Harrison, N. J.

YOUNGSTOWN, OHIO.—The Youngstown Sheet & Tube Co. has let contracts for an additional sheet mill plant to cost $500,000. The plant will consist of eight hot mills, four cold mills, additional galvanizing plant and low warehouse. The black sheet output of the company will be increased from 2,500 to 6,000 tons per month, and the galvanized sheet output from 2,000 to 4,000. The contract for the buildings has been let to the McCLINTIC-MARSHALL CO., Park Bldg., Pittsburg, Pa., and that for the mill work to the UNITED ENGINEERING & FOUNDRY CO., 307 Fifth Ave., Pittsburg, Pa.

A modern blast furnace, with skip hoist, pig machine and other equipment, is to be erected by the Struthers Furnace Co. at a cost of nearly $1,000,000. The Anna stack, which has been in use for years, is to be razed. The plans already decided on call for a stack 83 ft. high, with a 21-ft. bosh.

CANTON, OHIO.—We are officially advised that the Canton Enameling Co., of Crystal Park, formerly the Carnahan Stamping & Enameling Co., will break ground at once for a shop building, 272 × 184 ft., which will be located on the vacant land south of the present plant. The new structure, exclusive of the machinery, will cost about $30,000. The building will be of brick and steel construction, fireproof. The roof will be of saw-tooth pattern. The structure will be divided into two apartments saparated by a fire wall, each room being 100 × 172 ft. One room will be occupied by the shipping department, and the other will be used for warehouse purposes. Specifications are now being made by Albert M. Allen & Co., Consult. Engrs., 1130 Schofield St., Cleveland, Ohio. The following contracts have been let: Brick and carpenter work, WARNER & GATES, Reliance, Ohio; steel, CANTON BRIDGE CO.

PIQUA, OHIO.—The capital stock of the Piqua Hosiery Co. has been increased from $25,000 to $50,000 and the company will proceed to make improvements in its equipment at once.

SHELBYVILLE, IND.—Charles H. Campbell has ordered plans for the erection of a factory building to cost $50,000. The plant will be equipped with electric power throughout.

INDIANAPOLIS, IND.—The Chandler & Taylor Co., 740 W. Washington St., manufacturers of engines and iron works, will erect machine shop and carpenter shop, at a cost of $22,000.

GARY, IND.—It is announced by the Indiana Steel Co. that the construction of coke ovens for the local plant, will begin immediately. The first lot to be built will number 560 ft and will use between 6,000 and 7000 tons of coal a day.

ROYAL OAK, MICH.—F. C. Conrath, of St. Paul, Minn., is completing negotiations for the erection and equipment of a woolen mill to be erected at Royal Oak, for the Hudson Bay Blanket Co., which is to be incorporated within a faw days. The plant will give employment to 300 persons at the start and that the number probably will be increased to 500 very soon. The building to be erected and the machinery will cost about $150,000. Options have been secured for the site, which is on the Grand Trunk Ry. The output of the company will be bed blankets and automobile robes. It is expected that the plant will be ready for operation by Sept. 1.

MARSHALLTOWN, IOWA.—About $35,000 will be expended by C. A. Dunham Co., manufacturers of steam traps and specialties, for erection of a 2-story factory building, 40 × 80 ft., and a power plant.

MAPLETON, MINN.—A 40,000-bushel elevator will be erected here by W. J. Gregory and W. G. Gooding of the Commander Mill Co.

SMOLAN, KAN.—The Shellabarger Mill & Elevator Co., of Salina, Kan., will build a 35,000-bushel elevator here, it is stated.

WILMINGTON, CAL.—The International Oil Refinery Co. has been incorporated, with a capitalization of $11,000,000, to establish a refinery at Wilmington at a cost of about $100,000. The plant will be capacitated for topping 10,000 barrels and refining 500 barrels daily.

LEWISTON, IDAHO.—W. C. Day, Treas. of Marshall Field & Co., of Chicago, Ill., his son and business associates will erect a pulp and paper mill at Kootenia. The mill will cost $1,000,000. The middle fork of the Clearwater River will be utilized for driving logs and a dam will be built near its mouth.

WELLAND, ONT.—The Canadian Seamless Steel Co., Ltd., a branch of the Seamless Steel Co., of Detroit, Mich., will erect a manufacturing plant here to cost about $100,000.

WINNIPEG, MAN.—The contract has been awarded to BARNETT & McQUEEN, of Minneapolis, Minn., for the erection of a 300,000-bushel concrete elevator for the Ogilvie Milling Co.

Bids will be called soon by P. Ryan, Secy. of the National Transcontinental R. R. Comn., Ottawa, Ont., for the erection of the following additional shops east of here: Freight car shop, 200 × 600 ft.; paint shop, 100 × 325 ft.; coach shop, 125 × 250 ft.; planing mill, 100 × 300 ft.; lumber shop, 60 × 115 ft.; dry kiln, 40 × 50 ft.

Haney, Quinlan & Robertson, of Toronto, Ont., contractors for the National Transcontinental R. R. shops east of here, have sub-let the iron work to the MANITOBA BRIDGE & IRON WORKS CO. Cost, $350,000.

BRANDON, MAN.—J. B. Brodie, of this city, one of the incorporators of the recently organized National Elevator Co., Boston, Mass., has announced that the company will erect 100 grain elevators in western Canada this year.

ST. JOHNS, NEWFOUNDLAND.—According to a report received at the Department of Trade and Commerce, Ottawa, Ont., from E. D. Arnaud, Commercial Agent at St. Johns, W. R. Hearst, of New York, has purchased 1,000 square miles of pulp wood near Hermitage Bay, Newfoundland, and will invest $10,000,000 in the production of pulp for paper. He will employ 3,000 men.

MISCELLANEOUS CONTRACTS.

(denotes that this work is advertised in Engineering News.)*

U. S. RECLAMATION SERVICE.—Items regarding irrigation, canal projects, etc., will be found under Water Supply—Irrigation.

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*JETTY.—Galveston, Tex.—Bids are asked by Capt. John C. Oakes, Corps Engrs., U. S. A., until noon, June 12, for jetty work at Aransas Pass, Tex.

*RIPRAP.—Ashland, Wis.—Bids are asked until noon, June 8, by Lt.-Col. Graham D. Fitch, Corps Engrs., U. S. A., Duluth, Minn., for furnishing riprap at Ashland.

DITCH.—Valparaiso, Ind.—Bids will soon be asked for the construction of the Burns Ditch. The ditch as surveyed is 20 miles long and is estimated to cost $269,000.

DREDGING.—Los Angeles, Cal.—Bids are asked until 11 a. m., June 4, by Capt. Amos A. Fries, Corps Engrs., U. S. A., Los Angeles, for dredging at San Diego Harbor, Cal.

FENCES.—New York, N. Y.—Bids are asked by the Park Board until 3 p. m., May 27, for furnishing and erecting iron railings around the grass plots in Broadway, between 61st and 71st Sts., Boro. of Manhattan.

*STONE AND PEBBLES.—Superior, Wis.—Bids are asked by Lt.-Col. Graham D. Fitch, Corps Engrs., U. S. A., Duluth, Minn., until noon, June 7, for furnishing stone and pebbles for Superior Entry, Wis.

*ABUTMENT, PIERS, ETC.—Wheeling, W. VA.—Bids are asked until 11 a. m., June 8, by Capt. F. W. Altstaetter, Corps Engrs., U. S. A., Wheeling, for constructing abutment, piers, and weirs for Dam No. 11, Ohio River.

*AIR COMPRESSOR.—Brownsville, Pa.—Bids will be received by Maj. H. C. Newcomer, Corps Engrs., U. S. A., Pittsburg, until noon, June 9, for a water-power air compressor plant at new Lock 5, Monongahela River, Brownsville.

LIGHT-VESSEL.—Washington, D. C.—The Light House Board, Department of Commerce and Labor, Washington, D. C., has awarded contract for the construction of light-house vessel No. 94, to the RACINE BOAT CO., Muskegon, Wis., at $96,500.

DREDGING.—Moultreville, S. C.—Bids for dredging channel from quartermaster's wharf, Fort Moultrie, S. C., to Charleston Harbor, S. C., will be received by the Constructing Q. M., U. S. A., until noon, May 31. Information furnished on application.

FLOATING BATHS.—New York, N. Y.—Bids are asked by John F. Ahearn, Pres. Boro. of Manhattan, May 17, for repairs and alterations to baths and pontoons for the free floating baths; repairing and painting the roofs and painting 15 free floating baths.

DITCH.—Onawa, Iowa.—The county has awarded contract to JOHN A. BRUMBAUGH, Elkhart, Ind., for constructing Eisele ditch, about 57,000 yds. Bids were opened on May 4. C. E. Blanchard is County Audr.

CEMENT TESTING APPARATUS.—Atlanta, Ga.—Bids are asked by R. V. La Dow, Supt. of Prisons and Prisoners, Dept. of Justice, Washington, D. C., until 10 a. m., May 31, for furnishing and delivering at the U. S. Penitentiary, Atlanta, Ga., a cement testing apparatus.

PIER.—Brooklyn, N. Y.—Bids are asked by Allen N. Spooner, Commissioner of Docks, until noon, May 21, for furnishing all the labor and materials required for preparing for and building a new pier between 31st and 32d Sts., Boro. of Brooklyn, to be known as the 31st St. pier.

DRAIN.—Ft. Wayne, Ind.—Bids are asked by David Springer, Drain Comr., until May 27 for the construction of a large drain known as the Willow Creek system of drains in Allen County. There are 70 miles of dredging and 15 miles of tiling in the contract. Estimated cost, $70,000.

*DREDGING.—Kenton, Ohio.—Contract for the dredging of the lower Scioto River Improvement No. 123 will be awarded at public outcry at the County Surveyor's office at Kenton, Ohio, on May 24, at 10 a. m. Estimated cost, about $60,000. For information address James C. Poling, County Engr.

DIKES.—Vallejo, Cal.—Bids are asked until 11 a. m., June 19, by R. C. Hollyday, Ch. of Bureau of Yards and Docks, Navy Dept., Washington, D. C., for constructing about 1,500 ft. of timber dikes at the Navy Yard, Mare Island, Cal. Specifications are on file at the office of Engineering News, New York.

EARTH.—Washington, D. C.—Bids will be received until noon, May 22, by H. L. Pettus, Constructing Q. M., Takoma Substation, D. C., for furnishing and delivering earth for filling at Washington Barracks, D. C., either by hydraulic dredge or hauling. Specifications, blank proposals and further information furnished on application.

*EXCAVATION.—Portland, Me.—Bids were received as follows by Lieut.-Col. Geo. A. Zinn, Corps Engrs., U. S. A., until May 8 for rock excavation in Kennebec River at Lovejoys Narrows: Eastern Dredging Co., Portland, Me., $19.30 per cu. yd.; F. W. Carlton, Bath, Me., $21 per cu. yd.; Johnston & Virden, Lewes, Del., $20.30 per cu. yd.

GRANDSTAND.—St. Paul, Minn.—The general contract for the construction of a reinforced-concrete fireproof grandstand for the Minnesota State Agricultural Society, C. N. Cosgrove, Secy., St. Paul, has been awarded to the GEORGE J. GRANT CONSTRUCTION CO., 709 New York Life Bldg., St. Paul, at $198,507. Reed & Stem, St. Paul, are Archs.

CEMENT, ETC.—New York, N. Y.—Bids were received on May 3 by Allen N. Spooner, Comr. of Docks and Ferries, for furnishing and delivering (a) cement and for furnishing, delivering and putting in place (b) riprap stone. The following contracts have been let: (a) 20,000 bbls., JOHN B. KANE CO., $1.32 per bbl., (b) 40,000 cu. yds., O'BRIEN BROS., INC., 54 South St., 30 cts. per cu. yd.

*DREDGING.—Philadelphia, Pa.—Bids were received as follows on May 10 by Maj. Herbert Deakyne, Corps Engrs., U. S. A., Witherspoon Bldg., Philadelphia, for dredging 1,000,000 cu. yds. in the Delaware River in Section 1: P. Sanford Ross, Inc., Jersey City, N. J., $129,000; American Dredging Co., Mariner and Merchant Bldg., Philadelphia, Pa., $123,000 (recommended for acceptance).

DITCH.—Sycamore, Ill.—Bids were received by the Drainage Commissioners of Malta, Milan, Afton and DeKalb Special Drainage District, Ill., on May 6, for construction of open ditch (117,260 cu. yds. earth excavation), and for furnishing and hauling the materials. S. M. Henderson, Clk. Contract has been let to HORTON & MOSELY, Marion, Ind., at 11.48 cts. CLARENCE PETRIC secured the tile ditching work, at $2,148.

RAILROAD TRESTLE.—New Britain, Conn.—Bids were received by the American Hardware Corporation for constructing a reinforced-concrete railroad trestle, about 400 ft. long, which will be built at the Russell & Erwin plant of the company in New Britain. William T. Bonner is Mechanical Engr. The reinforced concrete contract was let to the B. H. HIBBARD CO., New Britain. The steel construction to AMERICAN BRIDGE CO., New York. Cost, $7,000.

*AIR COMPRESSOR.—East Orange, N. J.—Bids were received on April 26 by the City Council for one cross-compound duplex air compressor of about 1,500 cu. ft. air capacity, together with all necessary receivers, and air piping complete on foundations or in buildings to be furnished by the Water Department at White Oak Ridge pumping station, Milburn, N. J. L. E. Rowley, City Clk. Contract has been let to LAIDLAW-DUNN-GORDON CO., 115 Broadway, New York.

*LOCK.—Cincinnati, Ohio.—Bids were received as follows on April 23, by Lieut.-Col. J. G. Warren, Corps Engrs., U. S. A., for constructing Lock No. 13, Kentucky River; three dwellings, three outhouses, three cisterns and one office building, near Willow, Ky.: Ohio River Contracting Co., $291,015; J. C. Thomas, $292,850; H. E. Talbot & Co., $317,590.98; E. G. Nave Bros. Co., $314,633; Sheridan-Kirk Co., $283,345; Bates & Rogers Co., $351,115; Mason & Haenger, $284,235; Hollerbach & May Co., $296,775; Smith, Towles & Co., $272,960.

*LUMBER.—Washington, D. C.—Bids were received as follows on May 6 by Maj. Jay J. Morrow, Corps Engrs., U. S. A., Washington, for furnishing a quantity of lumber for York River, Va.: William D. Gill & Son, Baltimore, Md., $19.60; R. P. Clarke Co., Washington, $17.80; Culpeper & Co., Baltimore, $20.40; George R. Johnson, Baltimore, $21.95; G. Elias & Bro., Buffalo, $24; Denmead Bros., West Point, Va., $19; American Lumber & Mfg. Co., Pittsburg, $27.50; G. S. Briggs & Co., Norfolk, Va., $20.90; Carter & Clarke, Washington, $20.45.

SODIUM NITRATE, GUN FORGINGS.—Washington, D. C.—Bids were received as follows at the office of the Chief of Army Ordnance, Washington, for furnishing 4,500,000 lbs. of sodium nitrate: W. R. Grace & Co., 1 Hanover Sq., New York, 2.30 cts. per lb.; Parsons & Pettit, New York, 2.31 cts. per lb.

Also for gun forgings for 6-in. guns: Midvale Steel Co., Philadelphia, 21 cts. per lb. for rough machined gun steel; $1.75 per lb. for forged steel castings. Bethlehem Steel Co., South Bethlehem, Pa., 21 cts. gun steel, $2 forged steel.

JETTIES.—Fort Hancock, N. J.—Contract has been awarded to JESSE A. HOWLAND, of Sea Bright, N. J., for constructing wood jetties aggregating 3,800 ft. in length, protecting the east shore line at Sandy Hook Proving Ground, at $8.15 per ft. Other bidders were: Phoenix Construction Co., New York, $15; Latta & Terry Construction Co., Philadelphia, $12.75; John J. O'Connor, Brooklyn, N. Y., $11.84; Richard Parrott, Newburgh, N. Y., $10.40; C. W. Dean Co., New York, $8.99; Bartlett & Bailey, New York, $8.84; McManus Construction Co., Philadelphia, $8.49; Benjamin A. Van Brunt, Sea Bright, $8.40.

SEA WALL AND DREDGING.—Norfolk, Va.—Bids were received as follows on May 8, at the Bureau of Yards and Docks, Navy Department, Washington, for the construction of a timber and concrete sea wall, approximately 600 ft. in length and 40 ft. in width; removal of an old sea wall, and such dredging as is necessary to secure a mean depth of 30 ft., approximately 47,350 cu. yds. The new sea wall is to consist in general of a timber substructure of timber piles, clamps and decking, carrying as its outer face a concrete retaining wall and supporting at its outer face a line of 24-in. reinforced-concrete sheet piles. Item 1, work as specified; item 2, within spirit of specifications, but modified as bidder may suggest: Coastwise Dredging Co., Bank of Commerce Bldg., Norfolk, Va., (1) $142,922, (2) $138,922; Foundation Co., 115 Broadway, New York, (1) $198,000, (2) $179,415; Sanford & Brooks Co., 24 Commerce St., Baltimore, (1) $132,921; McLean Contracting Co., Maryland Trust Bldg., Baltimore, (1) $191,000, (2) $165,000; John Monk, Seaboard Bank Bldg., Norfolk, Va., (1) $136,200; William L. Miller, 19 Milk St., Boston, Mass., (1) $127,839, (2) $123,839.

U. S. POSSESSIONS.

CANAL, ETC.—Porto Rico.—Bids will be received at the office of B. M. Hall, Ch. Engr., Porto Rico Irrigation Service, until 2 p. m., June 14, for construction of about 24 miles of main canal with appurtenant structures, etc. Estimated cost, $155,000.

LUMBER.—Panama.—The Isthmian Canal Commission, Washington, D. C., has awarded to W. R. GRACE & Co., 614 California St., San Francisco, Cal., approximately 1,600,000 ft. B. M. of Douglas fir bridge timber at $25 per ft. B. M., delivery at La Boca (Pacific port), in 90 days.

PIG IRON.—Panama.—Bids were received as follows at the office of the Isthmian Canal Commission, Washington, D. C., on April 21-22, for furnishing 2,000,000 lbs. pig iron: Berry & Aikens, Philadelphia, $16,475; F. S. Bigler, Cleveland, Ohio (600,000 lbs. only), $5,170; Carter Iron Co., Pittsburg, $16,610; R. W. Geldart, New York, $16,740; R. C. Hoffman Co., Baltimore, $17,800; Frank Samuels, Philadelphia, $20,270; United States Steel Products Export Co., New York (600,000 lbs. only), $3,980.

PIG IRON.—Panama.—Bids were received as follows on May 11 by the General Purchasing Officer of the Isthmian Canal Commission, Washington, D. C., for furnishing 1,000,000 lbs. of No. 1 pig iron and 1,000,000 lbs. of No. 2 pig iron: Alabama Consolidated Coal & Iron Co., Birmingham, Ala., $14,400, $14,800—90 days; Carter Iron Co., Pittsburg, $16,610—100 days; R. W. Geldart, 4 Stone St., New York, $17,840—75 days; Frank Samuels, Philadelphia, $14,330, $14,780—60 days; United States Steel Products Export Co., 50 Church St., New York, $13,400—45 days.

LUMBER.—Panama.—Bids were received as follows on May 4 by the Isthmian Canal Commission, Washington, D. C., for furnishing approximately 1,600,000 ft. B. M. of lumber, long leaf, yelolw pine or Douglas fir: A. S. Bacon & Sons, Savannah, Ga., $60,993; Bay Shore Lumber Co., Mobile, Ala., $44,532; G. Elias & Bro., Buffalo, $48,552 on fir, $50,121 on pine; Wm. D. Gill & Sons, Baltimore, $43,393, $39,908, not on specifications; J. K. Joice, Chicago, $45,725; S. E. Naylor & Co., Gulfport, Miss., $47,231; Southern Sawmill Co., New Orleans, $48,564; D. L. Gillespie & Co., Pittsburg, $4,002, $38,779, pine, not on specifications, $48,192.43, on fir; W. R. Grace & Co., San Francisco, $25 per M. ft., on fir. All bids on pine unless otherwise specified; all fir bids on material delivered at La Boca.

CULVERT FORMS.—Panama.—Bids were received as follows on April 29, at the office of the Isthmian Canal Commission, Washington, D. C., for furnishing collapsible steel culvert forms: Baltimore Bridge Co., Baltimore, $10,898; Bergen Point Iron Works, New York, $15,143; Blaw Collapsible Steel Centering Co., Pittsburg, $11,363; George W. Jackson, Inc., 145 West Jackson Boulevard, Chicago, $8,690; New York Shipbuilding Co., Camden, N. J., $10,470; Ransome Concrete Machinery Co., New York, $17,799; $15,523; $16,262; $14,424.

Bids were received as follows on April 15 at the office of the Isthmian Canal Commission, Washington, D. C., for furnishing steel culvert forms: Blaw Collapsible Steel Centering Co., Pittsburg, $50,115; S. W. Jackson, Inc., Chicago, $34,672; Ransom Concrete Machinery Co., Dunnellen, N. J., $31,703, $30,996; Baltimore Bridge Co., Baltimore, $31,773, $28,629.

FOREIGN CONTRACTS.

RAILWAYS.—Honduras.—J. P. Henderson, P. O. Box 376, Chicago, has been granted a concession for building a railway from Punta Iriona, on the Atlantic Coast, to Juticalpa and thence to a point on the Pacific Coast with branches, one of which will run from the main line to Cabo de Gracias a' Dios, through an extensive section of rich mineral country. Mr. Henderson also has a wireless telegraph concession.

The Honduras National R. R. Co. has a concession and has plans under way for a railroad from Trujillo (Truxillo), on the Atlantic Coast, to Yoro and Tegucigalpa, the capital, with a branch to Juticalpa. Luther M. Fairbanks is Pres., Mansfield, Ill.

ENGINEERING MATERIAL PRICES.

TRACK FASTENINGS—

Pittsburg, f. o. b. cars—Angle bars, 1.40 to 1.50 cts.; spikes, standard sizes, 4½ × 9-16-in., at 1.80 cts. and smaller sizes at 2 cts. in carload and larger lots, with an advance of 5 cts. per 100 lbs. for less than carload, f. o. b. Pittsburg; bolts, square nuts, 2.65 to 2.75 cts.; hexagonal nuts, 2.80 to 2.90 cts.

RAILS, STEEL—

New York—at mill—New standard sections, $28; standard, second quality, $27 to $28; light sections, 12 to 14 lbs., $34 to $36. Per gross ton—Heavy melting steel scrap, $13 to $13.50; old steel rails, rerolling lengths, $15 to $15.50; relaying rails, $23 to $24; old iron rails, $18 to $18.50.

Pittsburg—Standard sections, at mill, $28; standard, second quality, $27 to $28; light rails, 25 to 45-lb. sections, $25; 20-lb., $26; 16-lb., $27; 12-lb., $28.

STRUCTURAL MATERIALS—

Pittsburg—f. o. b. mill—Beams and channels, 3 to 15-in., inclusive, 15 cts., net; I-beams over 15-in., 1.70 cts., net; angles, 3 to 6-in., inclusive, ¼-in. and up, 1.60 cts., net; angles, over 6 ins., 1.70 cts., net; angles, 3 × 3 ins. and up, less than ¼-in., 1.50 cts., base, half extras, steel bar card; tees, 3-in. and up, 1.65 cts., net; zees, 3-in. and up, 1.60 cts., net; angles, channels and tees under 3-in., 1.50 cts., base, half extras, steel bar card; deck beams and bulb angles, 1.90 cts., net; hand rail tees, 3 cts.; net; checkered and corrugated plates, 3 cts., net.

Chicago—at mill—Beams and channels, 3 to 15-in., inclusive, 1.78 cts.; angles, 3 to 6-in., ¼-in. and heavier, 1.78 cts.; angles larger than 6-in., 1.88 cts.; beams, larger than 6-in., 1.88 cts.; beams, larger than 15-in., 1.8 cts.; zees, 3-in. and over, 1.78 cts.; tees, 3-in. and over, 1.83 cts.

New York—at tidewater—Beams, channe[ls,] angles and zees, 1.76 cts.; tees, 1.81 cts. on beams, 18 to 24-in., and angles over 6-in., the extra is 0.10 cts.

PLATES AND SHEETS—

New York—at tidewater—Standard-sized plates—Sheared plates, 1.56 cts. to 1.76 cts.; flange plates, 1.66 cts. to 1.86 cts.; marine plates, 1.86 cts. to 2.06 cts.; fire box plates, 2.65 cts. to 3 cts., according to specifications.

Pittsburg—mill shipmnet—Tank plates, ⅜-in. thick, 6¼ ins. up to 100 ins. wide, 1.60 cts., base; blue annealed sheets, No. 10 and heavier, 1.80 cts.; Nos. 11 and 12, 1.85 cts.; Nos. 13 and 14, 1.90 cts.; Nos. 15 and 16, 2 cts. Box annealed, Nos. 17 to 21, 2.25 cts.; Nos. 22 to 24, 2.30 cts.; Nos. 25 and 26, 2.35 cts.; No. 27, 2.40 cts.; No. 28, 2.50 cts.; No. 29, 2.60 cts.; No. 30, 2.70 cts.; galvanized sheets, Nos. 10 and 11, 2.45 cts.; Nos. 12 and 14, 2.55 cts.; Nos. 15 and 16, 2.65 cts.; Nos. 17 to 21, 2.80 cts.; Nos. 22 and 24, 2.95 cts.; Nos. 25 and 26, 3.15 cts.; No. 27, 3.35 cts.; No. 28, 3.55 cts.; No. 29, 3.70 cts.; No. 30, 3.95 cts.

IRON—

Pig Iron:

At New York—tidewater—

Northern—	
No. 1 X foundry	$16.50 to $16.75
No. 2 X foundry	16.00 to 16.25
No. 2 plain, foundry	15.50 to 15.75
Gray forge	15.00 to 15.50
Basic	15.75 to 16.25
Virginia—	
No. 1 foundry	16.65 to 17.10
No. 2 foundry	16.10 to 16.65
Basic	16.25 to 16.75
Southern—	
No. 1 foundry	15.75 to 16.25
No. 2 foundry	15.25 to 15.75
No. 3 foundry	14.75 to 15.25
No. 4 foundry	14.50 to 15.00
No. 1 soft	15.75 to 16.25
No. 2 soft	15.25 to 15.75
Gray Forge	14.00 to 14.50
Mottled	13.95 to 14.25

At Chicago—f. o. b.—

Lake Superior charcoal	19.50 to 20.00
Northern—	
Coke foundry, No. 1	17.00 to 17.50
Coke foundry, No. 2	16.50 to 17.00
Coke foundry, No. 3	16.00 to 16.50
Scotch, No. 1	17.50 to 18.00
Southern—	
Coke, No. 1	16.35 to 16.85
Coke, No. 2	15.85 to 16.35
Coke, No. 3	15.35 to 15.85
Coke, No. 4	14.85 to 15.35
Coke, No. 1 soft	16.35 to 16.85
Coke, No. 2 soft	15.85 to 16.35
Gray forge	14.35 to 14.85
Mottled	14.10 to 14.60
Malleable Bessemer	16.50 to 17.00
Standard Besemer	17.90 to 18.40
Jackson County and—	
Kentucky Silvery, 6%	19.90 to 20.40
Kentucky Silvery, 8%	20.90 to 21.40
Kentucky Silvery, 10%	22.90 to 23.40

At Philadelphia—

Eastern Pennsylvania—	
No. 2 X Foundry	16.25 to 16.50
No. 2 Plain	15.75 to 16.00
Virginia—	
No. 2 X Foundry	16.75 to 17.00
No. 2 Plain	16.25 to 16.75
Gray forge	15.25 to 15.50
Basic	.... to 15.50
Low Phosphorus	.... to 21.00

At Pittsburg—

Prices all f. o. b. Pittsburg—	
No. 2 foundry	14.90 to 15.15
Gray forge	14.40 to 14.65
Bessemer iron	... to 16.50
Ferromanganese	... to 45.95
Ferrosilicon	62.25 to 62.50

Cast-iron Pipe:

New York—Carload lots, net tons, 6-in., at tidewater, $24.

Chicago—4-in. water pipe, $27.50; 6-in. to 12-in., $26.50; over 16-in., $24.50, with $1 extra for gas pipe.

MISCELLANEOUS MATERIALS—

Copper:

Lake, 12.87½ to 13.12½ cts.; electrolytic, 12.50 to 12.62½ cts.; casting, 12.37½ to 12.50 cts.

Lead: New York, spot, 4.05 to 4.10 cts.
Spelter: New York, spot, 4.75 to 4.77½ cts.
Tin. New York, spot, 29 to 29.20 cts.

Readers' Wants

If you are in the market for material, equipment or supplies, and fail to find it in our advertising pages, send us full particulars, and we will gladly put you in touch with the right parties.

DYNAMOMETERS.—Caracas, Venezuela.—We are in receipt of an inquiry from Roman Cardenas, Engr., Caracas, requesting information concerning transmission dynamometers.

RAILS AND CONSTRUCTION SUPPLIES.—Weston, N. J.—Pennsylvania Utilities Corporation, Jesse L. Straus, Treas., Weston, N. J., is in the market for rails and general construction supplies.

LIME KILNS.—Easton, Pa.—Edward F. White, 123 Burke St., desires information relative to continuous lime calcining kilns for burning carbonate limestone to lime oxide for building and other purposes.

MINE EQUIPMENT.—Black Lake, P. Q.—C. S. Saunders, Mgr. Imperial Asbestos Co., Ltd., writes that in the course of the equipment the company will be in the market for all the standard milling machinery for the reduction of asbestos from the rock. Electric power will be used for the operation and the company will need crushers, both jaw and gyratory; conveyors, dryers, cars, screens and separators, pulleys and shafting, fans and pumps.

MISCELLANEOUS EQUIPMENT.—Calcutta, India.—W. Shedden Paxton, Manufacturers' Agent, desires illustrated price-list and maximum export and cash discounts, quotations from American makers of sewer, canal, and earthwork shovels, diggers, excavators, elevators and dredgers; dump cars of all descriptions, buckets, aerial wire rope ways, pile drivers, tools and appliances, graders, spreaders, scrapers. Also suction gas plants to serve engines from 4 to 1,000 HP.

INDUSTRIAL NOTES.

THE NATIONAL WOOD PIPE CO. announces the opening of sales offices at 210-212 Wells Fargo Bldg., Portland, Ore.

THE DECKMAN-DUTY BRICK CO., Cleveland, Ohio, advises us that the company is now occupying its new offices at 519-521 Electric Bldg.

THE ERNST WIENER CO., New York City, manufacturers of industrial cars and track, has appointed the W. K. Kenly Co., of Chicago, as district sales agents.

A. B. C. EQUIPMENT CO., dealers in new and second-hand contractor's machinery, have removed their offices from the Metropolitan Building to Room 510, 140 Nassau St., New York City.

MURALT & CO., 114 Liberty St., New York, have opened a branch office in the Temple Court Bldg., corner Bay and Richmond Sts., Toronto, Ont. Mr. J. Ench, who has been prominently connected with this company for many years, will be in charge as manager.

THE GLIDDEN VARNISH CO. moved its general offices from the Rockefeller Bldg., Superior Ave., Cleveland, Ohio, on the 17th ulto. to its new $100,000 Administration Building just finished, located at the new plant of the company. Ground was broken for the building in September last.

WATERPROOFING CO., 147 East 35th St., New York, is now at work on its two contracts covering the waterproofing at the Ritz-Carlton Hotel, 17-29 East 46th St., and the Carlton House, 16-28 East 47th St., New York. The general contractor for this work is M. Reid & Co., and it is being done under the supervision of Warren & Wetmore, Architects.

THE CONTRACT for the foundations, including concrete piling, for the new six-story warehouse to be erected on Pier 2, Baltimore, Md., for the Standard Oil Co., has been awarded to the Raymond Concrete Pile Co., of New York and Chicago. Messrs. Haskell & Barnes, Baltimore, are the architects for the work, and William Ferguson & Bro., the general contractors.

ONE OF THE LARGEST ORDERS for underground copper cables, inclosed in lead, that has ever been placed with the Standard Underground Cable Co., of Pittsburg, was awarded recently by the Pennsylvania Railroad Co. It is for use in the tunnel system at the New York terminals. The contract calls for exceptional care in the manufacture of these cables, which are designed to carry a current of 11,000 volts.

THE NEW YORK OFFICE of the Detroit Graphite Co., paint makers, has been removed to 135 Broadway, corner of Cedar St., where larger offices have been secured to meet the requirements of the Eastern business. In addition to the well-known brand of "Superior Graphite Paint" for steel, the company is manufacturing a complete line of durable colors for use on either wood or metal, to meet the requirements of exposure and hard service.

THE LACKAWANNA BRIDGE CO. has been incorporated at Buffalo with a paid-up capital of $500,000, and will build a plant in the vicinity of the Lackawanna Steel Co.'s works, for the fabrication of bridges and structural steel work. The directors are Beverly L. Worden of the Worden & Allen Co., Milwaukee, who will be president; Fordyce H. Bottom, Frank R. Bacon and Jacob E. Friend, of Milwaukee, and Ralph A. Kellogg, of Buffalo.

THE EAST PITTSBURG SHOPS of the Westinghouse Electric Mfg. Co. have received orders to begin the construction of the first lot of electric locomotives which the Pennsylvania Railroad Co. will operate in the tunnels of the New York terminals, according to the Philadelphia Ledger. These locomotives, it is said, represent the latest development in electrical engineering, being larger and more powerful than any other locomotive, either steam or turbine, ever heretofore constructed, each having a capacity of 5,600 HP. The new locomotives will be able to attain a speed of 90 miles an hour. The first lot to be turned out consists of 24 double units of these locomotives, but it is understood that more will be needed soon after the terminal station is opened.

THE SAFETY CAR HEATING & LIGHTING CO. in the last five months has made a large number of sales of its buoys and buoy lanterns. The light-house establishment has recently decided upon a more liberal lighting for the lower New York Harbor and has placed orders for a sufficient number of Pintsch gas buoys, to enable the largest steamers to enter the harbor at night. The popularity of these buoys for harbor lighting is clearly evidenced by their general adoption, there being over 2,200 in service throughout the world, the principal countries using them as follows: United States and Canada, 497; England, 439; Argentine, 296; France, 209; Germany, 106; Holland, 166. The recent Government orders, consisting of 18 Type B III buoys, 10 Type "C" spar buoys, and [illegible]xtra buoy lanterns, again emphasize th[illegible]reat value of this invention for harbor li[illegible]ng.

W. N. KRATZER & CO[illegible]ittsburg, Pa., manufacturers of structur[illegible]eel and iron work, advise that they hav[illegible] contract for furnishing and fabricating th[illegible]ructural steel and steel construction requ[illegible] in the new Temple Theater, being erec[illegible] Rochester, N. Y., aggregating almost [illegible]ns, in which is included two steel plate[illegible]ed box girders of unusual size and to[illegible] to support balcony and gallery. These [illegible]rs are each 22 ins. in width, 53½ ins. [illegible]pth and 84 ft. in length, weighing 39 [illegible] piece.

AMONG ORDERS RECEN[illegible] received by the Philadelphia plant of th[illegible]k Belt Co are: Cuba—Coal and ashe[illegible]dling machinery for iron works, [illegible]ravity discharge elevators, miscellaneou[illegible]vating and conveying machinery for [illegible]ng sugar, bituminous coal handling m[illegible]ry. Florida—Elevators, conveyors an[illegible]scellaneous machinery for handling phosp[illegible] rock. New Jersey—Locomotive coaling [illegible], machinery for handling linoleum [illegible]n, coaling chutes for retail coal pocket. [illegible]ew York—Retail coal pocket outfit, indu[illegible]l system, coal handling machinery for [illegible]oad. Nova Scotia—Ashes handling mach[illegible], screening apparatus. Pennsylvania [illegible]rel elevator for brewery, slat conveyor [illegible] handling boxes, two gravel conveyors, [illegible]vators for handling large bales, miscellan[illegible] tray elevator machinery, coal handlin[illegible] machinery for water-works.

AMONG THE LARGE DIREC[illegible]URRENT generators recently sold by [illegible] Crocker-Wheeler Co., of Ampere, N. [illegible] is one of 300-KW. capacity, 250 volts, pu[illegible]hased by Perry Fay Mfg. Co., Elyria, Oh[illegible]. Another machine of this type, having a [illegible]pacity of 200-KW., 125 volts, was brou[illegible] by the Cleveland Provision Co., Clevel[illegible]nd, Ohio. There were many sales of smaller generators ranging in size from 35 to 100-KW. A large order was placed with the Spanish-American Iron Co., Felton, Nipe Bay, Cuba for 2[illegible]-volt, direct-current motors aggregating 2[illegible] HP. Another sale of direct-current motors, which totalled 135-HP., was made to the Morgan Engineering Co., Alliance, Ohio. The International Silver Co., Meriden, Conn., has ordered six Crocker-Wheeler, Form I machines, having a combined capacity of 131 HP. In addition to the above a large number of smaller orders for direct-current motors have been booked.

CONTRACT PRICES.

[Where * precedes item under Contract Prices, the work was advertised in Engineering News.]

SEWERS.—Seattle, Wash.—Bids in detail were received by the Board of Public Works on April 9, for constructing sewers on Thorndyke Ave., etc. The bids were submitted as follows by (A) Ide & Jones, Seattle, Wash.; (B) C. W. Coit & Co., Downs Block, Seattle, Wash.; (C) Kiogh & Jessen, Seattle, Wash.; (D) International Contract Co., 501 Central Bldg., Seattle, Wash.; (E) T. RYAN & CO., Sullivan Bldg., Seattle, Wash., (awarded contract).

	(A)	(B)	(C)	(D)	(E)
30,510 lin. ft. 8-in. pipe sewer	$1.90	$1.52	$.170	$1.79	$1.27
7,500 lin. ft. 10-in. pipe sewer	2.40	1.68	1.80	1.38	1.97
3,700 lin. ft. 12-in. pipe sewer	2.30	2.17	2.20	2.59	1.49
2,650 lin. ft. 15-in. pipe sewer	2.90	2.38	3.00	2.90	1.95
4,650 lin. ft. 18-in. pipe sewer	5.60	4.75	6.30	4.00	2.60
1,420 lin. ft. 21-in. pipe sewer	4.70	4.00	5.00	5.02	3.25
950 lin. ft. 24-in. pipe sewer	6.65	5.50	5.50	5.90	4.25
1,050 lin. ft. 24 × 35-in. Oriform brick sewer	8.00	8.10	8.60	10.45	6.00
2,240 lin. ft. 26 × 39-in. Oriform brick sewer	12.00	11.90	11.50	13.00	7.90
2,980 lin. ft. 30 × 45-in. Oriform brick sewer	10.40	12.25	12.00	14.55	8.15
1,000 lin. ft. 21 × 24-in. wood box	3.00	4.05	4.30	2.40	1.25
1 flush tank	130.00	120.00	120.00	110.00	110.00
105 4½-ft. manholes	90.00	90.00	85.00	80.00	78.00
112 3½-ft. manholes	75.00	80.00	75.00	65.00	68.00
3 overflow manholes	130.00	200.00	150.00	80.00	85.00
180 lin. ft. wooden extension to manholes	2.20	2.00	1.25	1.50	1.25
100 single inlet catch basins	70.00	65.00	75.00	65.00	64.00
38 catch basins, double inlet	80.00	75.00	85.00	75.00	78.00
1 catch basin, triple inlet	90.00	80.00	100.00	90.00	90.00
3 catch basins, reconnected	50.00	10.00	15.00	30.00	10.00
8 sand boxes	30.00	40.00	50.00	50.00	40.00
4,000 lin. ft. 6-in. side connections	1.20	1.00	1.00	1.00	.75
600 lin. ft. 6-in. standing connections	1.20	.80	1.00	.60	1.00
50 lin. ft. 8-in. drop connections to M. H.	2.25	1.00	1.00	1.00	1.00
20 lin. ft. 10-in. drop connections to M. H.	2.50	1.50	1.25	1.25	1.20
40 lin. ft. 18-in. pipe culvert	1.75	1.75	1.75	1.85	1.60
40 lin. ft. 8-in. pipe culvert	.60	.40	.75	.60	.75
30 cu. yds. 1:3:5 concrete	8.50	10.00	12.00	7.00	7.80
3,000 lin. ft. 6-in sub sewer	.60	1.00	.60	.50	.60
Totals	$243,355	$225,236	$240,257	$243,354	$167,816

SURFACING.—Bids were received on April 26 by the Charles River Basin Commission for surfacing Section 1, Boston Embankment, Contract No. 124. The itemized prices as submitted by (A) T. H. GILL CO., Winter Hill, Mass. (awarded contract); (B) Frank H. Cowin Co., Boston, Mass.; (C) Fred E. Ellis, Melrose, Mass.; (D) Coleman Bros., 15 Court Sq., Boston, Mass.; (E) Rowe Contracting Co., Brighton, Mass.; (F) Bruno & Petitti, Boston, Mass.; (G) James T. Barrett, Cambridge, Mass.; (H) John J. Falvey, East Somerville, Mass.; (I) Kelly & Long, Dorchester, Mass., follow:

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
400 sq. yds. removing stone block pavement	0.40	0.40	0.31	0.50	0.50	0.50	0.50	0.50	1.00
2,600 lin. ft. laying 8-in. vitrified pipe	0.56	0.65	0.33	0.40	0.25	1.00	0.30	0.70	0.55
3,600 lin. ft. laying 10-in. vitrified pipe	0.64	0.65	0.61	0.40	0.25	1.25	0.40	0.85	0.75
2,400 lin. ft. laying 4-in. cast-iron pipe	0.30	0.40	0.70	0.20	0.25	0.35	0.75	0.60	0.45
5,900 lin. ft. laying 2-in. fiber conduits	0.26	0.30	0.14	0.10	0.25	0.20	0.25	0.50	0.30
6 service boxes "E"	4.50	7.00	10.38	20.00	16.00	15.00	7.00	20.00	10.00
4 service boxes "F"	5.00	7.00	6.15	20.00	17.00	10.00	5.00	10.00	10.00
7 manholes	55.00	40.00	46.00	70.00	35.00	40.00	50.00	50.00	30.00
25 catch basins for walks	20.00	40.00	12.00	15.00	25.00	20.00	11.00	15.00	12.00
38 catch basins for roadway	42.00	40.00	50.25	50.00	45.00	40.00	45.00	65.00	30.00
4,200 lin. ft. granite edge stones in place	0.99	1.00	1.35	1.10	1.50	1.40	1.10	1.20	1.10
7,000 cu. yds. gravel in place in walks and roadwa	1.50	1.50	1.49	1.50	1.80	2.00	1.75	1.30	2.90
1,400 sq. yds. vitrified brick gutters	2.20	2.50	2.67	2.50	2.00	2.00	3.00	1.80	2.50
2,200 tons broken stone in place in roadway	2.50	2.00	1.91	2.00	1.80	2.25	2.50	2.20	2.00
4,500 sq. yds. granolithic walks	1.65	1.45	1.55	1.50	1.75	1.25	1.80	2.00	1.98
20,000 cu. yds. loam surfacing in place	1.23	1.30	1.58	1.75	1.74	1.85	2.50	2.60	2.40
Totals	$63,965	$64,915	$70,917	$71,485	$74,904	$82,005	$92,762	$95,325	$98,860

STORAGE RESERVOIR.—Altoona, Pa.—On April 22 the Board of Water Commissioners of Altoona received the following itemized bids for a storage reservoir at Lake Altoona, from (A) Seanor & Carothers, Greensburg, Pa.; (B) A. V. Purnell, Pittsburg, Pa.; (C) W. H. Herr, Altoona, Pa.; (D) D. P. O'Rorke, Altoona, Pa.; (E) Swanson Bros. Co., Cannonsburg, Pa.; (F) Norcross & Edmunds, Philadelphia, Pa.; (G) Sherman, Parker & Beebe, Utica, N. Y.; (H) [illegible], Baltimore, Md.; (I) Booth & Flynn, Pittsburg, Pa.; (J) P. W. Finn, Altoona, Pa.; (K) Vipond Construction Co., Altoona, Pa.; (L) Crossan Construction Co., Brownsville, Pa.; (M) P. F. Brendlinger, Philadelphia, Pa.; (N) Ahrens Construction Co., Lewiston, Pa.; (O) Adam Laidlaw & Co., Scranton, Pa.; (P) F. G. Downs, Canton, Ohio; (Q) McArthur Bros. Co., New York City. Knight & Hopkins, Rome, N. Y., are Engrs.; George S. Beal is Res. Engr.

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
Grubbing and clearing (Lump sum	$5,750.00	$900.00	$2,500.00	$4,700.00	$60.00	$100.00	$3,000.00	$2,580.00	$1,000.00
3,650 cu. yds. excavation for core wall between 5 and 10 feet	.50	.40	.50	.50	.55	.25	.40	.45	.75
3,200 cu. yds. excavation for core wall between 10 and 15 feet deep	.65	.40	.70	1.00	.65	.30	.40	.60	.75
2,650 cu. yds. excavation for core wall between 15 and 20 feet deep	.85	.40	1.00	1.50	.75	.38	.40	.80	.75
2,200 cu. yds. excavation for core wall between 20 and 25 feet deep	1.00	.50	1.30	2.00	.85	.48	.40	1.00	.75
700 cu. yds. excavation for core wall below 25 feet deep	1.25	.60	2.00	2.50	.95	.55	1.50	1.25	.75
200 cu. yds. rock excavation	2.00	2.00	2.00	2.00	1.00	1.30	2.00	1.50	3.00
360,000 cu. yds. embankment	.30	.32	.36	.33	.38	.39	.375	.40	.39
40 cu. yds. 1-3-5 concrete	8.00	8.00	10.00	20.00	12.00	6.50	7.50	10.00	7.00
21,000 cu. yds. rubble concrete	4.74	5.25	4.40	4.80	4.59	5.35	5.10	4.75	5.00
1,260 cu. yds. slope paving	2.50	5.00	3.50	4.00	2.50	3.00	3.00	2.25	3.50
1 12-ft. length 60-inch cast-iron pipe, in place	250.00	300.00	192.00	250.00	40.00	170.00	120.00	250.00	200.00
1,200 lbs. 8-inch 18-lb. I-beams, in place	.04	.03	.05	.07	.03	.03	.05	.04	.03
2,400 lbs. lengthening valve stems, in place	.08	.06	.06	.15	.07	.07	.10	.05	.06
460 lbs. wrought-iron racks, in place	.08	.05	.06	.10	.07	.07	.10	.05	.05
250 lbs. bronze steps, in place	.35	.30	.25	.60	.30	.40	.20	.20	1.00
1,500 lbs. medium steel rods for reinforcement, in place	.06	.03	.04	.05	.04¾	.03½	.05	.03	.03
1 wrought-iron gate, in place	30.00	15.00	30.00	15.00	10.00	20.00	25.00	25.00	20.00
3,155 lin. ft. 12-in. vitrified tile sewer, furnished and laid	.70	.60	.70	.65	.78	.90	.60	.71	.75
465 lin. ft. 8-in. vitrified tile sewer, furnished and laid	.60	.52	.50	.50	.68	.76	.40	.62	.75
9 manholes, complete	45.00	25.00	40.00	40.00	45.00	32.00	40.00	75.00	50.00
3 inlets, complete	40.00	30.00	60.00	20.00	50.00	35.00	40.00	40.00	50.00
1 flush tank, complete	50.00	40.00	50.00	100.00	50.00	38.00	40.00	125.00	50.00
4,000 lin. ft. drilling holes for grouting under core wall foundation	.50	.25	.25	.50	.25	2.00	.30	.60	.20
3,000 lin. ft. concrete fence, Class A, complete, in place	1.00	.50	1.00	.80	1.55	1.00	.90	.63	1.00
130 lin. ft. concrete fence, Class B, complete, in place	1.00	.75	1.00	.90	1.45	1.33	.90	1.34	1.00
Flooring openings, in gate house (lump sum)	40.00	15.00	20.00	50.00	3.00	32.30	50.00	50.00	25.00
Totals	$235,315	$244,430	$248,412	$254,040	$259,457	$261,107	$262,592	$267,066	$269,028

	(J)	(K)	(L)	(M)	(N)	(O)	(P)	(Q)
Grubbing and clearing (Lump sum	$75.00	$75.00	$3,600.00	$3,000.00	$3,000.00	$840.00	$6,000.00	$2,000.00
3,650 cu. yds. excavation for core wall between 5 and 10 feet	.55	.50	.50	1.00	.45	.30	.75	.70
3,200 cu. yds. excavation for core wall between 10 and 15 feet deep	.75	.80	.70	1.50	.55	.40	1.25	.90
2,650 cu. yds. excavation for core wall between 15 and 20 feet deep	.95	1.00	.95	1.75	.65	.50	1.50	1.10
2,200 cu. yds. excavation for core wall between 20 and 25 feet deep	1.15	1.00	1.17	2.00	.75	.60	2.50	1.30
700 cu. yds. excavation for core wall below 25 feet deep	1.85	1.00	1.90	2.50	.80	.70	2.50	1.50
200 cu. yds. rock excavation	.98	1.00	.95	1.50	3.50	1.25	3.50	1.00
360,000 cu. yds. embankment	.37	.40	.40	.35	.42	.48	.40	.60
40 cu. yds. 1-3-5 concrete	6.50	10.00	8.00	7.00	15.00	4.50	7.00	15.00
21,000 cu. yds. rubble concrete	5.00	5.00	5.00	5.00	4.98	4.25	5.20	5.25
1,260 cu. yds. slope paving	2.25	2.25	2.50	2.50	3.00	4.25	4.00	5.00
1 12-ft. length 60-inch cast-iron pipe, in place	150.00	10.00	420.00	400.00	300.00	190.00	100.00	225.00
1,200 lbs. 8-inch 18-lb. I-beams, in place	.10	.05	.04	.08	.03	.03	.05	.03
2,400 lbs. lengthening valve stems, in place	.05	.08	.35	.08	.05	.05	.06	.15
460 lbs. wrought-iron racks, in place	.05	.08	.02¼	.15	.08	.08	.10	.05
250 lbs. bronze steps, in place	.45	.30	.07	.50	.10	.10	.75	.50
1,500 lbs. medium steel rods for reinforcement, in place	.03	.05	.02½	.04	.03	.03	.04	.06
1 wrought-iron gate, in place	17.50	20.00	100.00	100.00	10.00	12.00	25.00	10.00
3,155 lin. ft. 12-in. vitrified tile sewer, furnished and laid	.70	.80	.65	1.40	.65	1.25	1.00	.70
465 lin. ft. 8-in. vitrified tile sewer, furnished and laid	.50	.60	.60	1.50	.60	1.00	.60	.60
9 manholes, complete	40.00	43.00	40.00	50.00	50.00	52.00	30.00	60.00
3 inlets, complete	45.00	30.00	60.00	50.00	30.00	60.00	20.00	50.00
1 flush tank, complete	150.00	150.00	75.00	100.00	55.00	60.00	100.00	75.00
4,000 lin. ft. drilling holes for grouting under core wall foundation	1.25	.60	.70	.25	.50	.50	.75	.30
3,000 lin. ft. concrete fence, Class A, complete, in place	.69	1.25	1.15	.75	.90	58	60	1.50
130 lin. ft. concrete fence, Class B, complete, in place	.69	2.00	1.15	1.25	1.75	.95	1.00	2.00
Flooring openings, in gate house (lump sum)	7.00	50.00	100.00	250.00	10.00	5.00	25.00	200.00
Totals	$273,532	$277,286	$277,664	$278,000	$279,630	$283,635	$298,000	$357,891

McArthur Bros. Co.'s bid was to finish by Jan. 1, 1910.

TRADE PUBLICATIONS.

GRAPHITE.—Joseph Dixon Crucible Co., Jersey City, N. J. Paper; 6 × 9 ins.; pp. 24; illustrated.

The use of graphite for the lubrication of air compressors is particularly treated in this attractive booklet.

FAN MOTORS.—Fort Wayne Electric Co., Fort Wayne, Ind. Bulletin 1114. Paper; 8 × 10½ ins.; pp. 24; illustrated.

The complete line of "breeze makers" being put out by this company for the 1909 season is herein described and illustrated.

FILTER PRESS.—Kelly Filter Press Co., Salt Lake City, Utah. Paper; 6 × 9 ins.; pp. 46; illustrated.

The construction and operation of the Kelly patented filter press is herein given, together with a brief treatise on filtration and pressure filter devices for mining and sugar plantation operations.

STEEL LATH.—Series A1, 1909. The Consolidated Expanded Metal Cos., 225 Fifth Ave., New York. 6 × 9 ins.; pp. 16; illustrated.

The expanded metal lath made by these companies is described in this bulletin, with examples of its previous use and instructions for future use.

COAL CHUTES.—Ewald Over, 426 Pennsylvania St., Indianapolis, Ind. Paper; 3½ × 6½ ins.; pp. 12; illustrated.

These are for use in buildings, being built into the walls. When open they form chutes to receive coal from wagons, and when closed the opening is automatically closed and locked so as to be burglar-proof.

DRAWN STEEL SPECIALTIES.—Janney, Steinmetz & Co., Philadelphia. Paper; 6 × 3½ ins.; pp. 36; illustrated.

These are pressed and seamless tanks, shells, bottles and other specialties, including steel barrels and seamless welded steel plate cylinders. Air-pump and tank fittings, gages, gasoline lock valves, etc., are included.

FILING CABINET.—The Macey Co., 80-82 Wabash Ave., Chicago. Paper; 3½ × 6 ins.; pp. 16; illustrated.

A system of interchangeable units is described, fitting into cabinets and forming various combinations for filing papers, etc., of various sizes. The pamphlet describes the various purposes to which this system is adaptable.

WOOD CONDUIT.—Wyckoff Pipe & Creosoting Co., 50 Church St., New York City. Catalog B. Paper; 9 × 6 ins.; pp. 32; illustrated.

Creosoted wood conduit for enclosing underground cables and wires is described in this catalog, and, in addition, some space is devoted to creosoted crossarms, poles, piles, wharf timbers and planking.

HYDRAULIC PAINT.—Semet-Solvay Co., Syracuse, N. Y. Paper; 3¾ × 6½ ins.; pp. 6; illustrated.

The Solvay hydraulic paint is a heavy-bodied material for the protection of steel which is exposed to the action of water. Testimonials in the circular relate to the use of this paint for penstocks and for bridges and lock gates exposed to the action of salt water.

ROAD CONSTRUCTION AND DUST PREVENTION.—Barrett Mfg. Co., New York. Stiff paper; 9 × 6 ins.; pp. 38; illustrated.

Information regarding the various grades of tarvia and their use in making roads both durable and dustless is presented in this pamphlet. A number of interesting views of so-called tarviated roads and various testimonials on the same subject are included.

REINFORCED CONCRETE.—Bulletin No. 5, Northwestern Expanded Metal Co., 930 Old Colony Bldg., Chicago. 3¼ × 6 ins.; pp. 32; illustrated.

This fifth of the little booklets issued by this company is entitled "Beam and Column Data." It contains in small space a mass of useful information, data and tables regarding the design of those two important factors of reinforced-concrete construction.

ELECTRIC CLOCKS.—Industrial Instrument Co., Foxboro, Mass. Bulletin 22. Paper; 8 × 10½ ins.; pp. 40; illustrated.

The so-called standard time system is described in full in this catalog. This system consists of a self-winding master clock, by which impulses of electrical energy are sent out at precise intervals to secondary clocks which are driven thereby. A variety of other time-recording apparatus is also listed.

WATER PURIFIERS.—Kennicott Water Softener Co., Chicago Heights, Ill. Paper; 9 × 11 ins.; pp. 16; illustrated.

In an elaborate and artistic catalog this company has set forth its designs of large water softening plants for steam boilers particularly. The book is filled with excellent illustrations of typical installations of water softeners provided for steam railroad lines. The operation of the Kennicott system of arrangement is also shown.

TUNGSTEN STREET LAMPS.—General Electric Co., Schenectady, N. Y. Bulletin 4647. Paper; 8 × 10½ ins.; pp. 8; illustrated.

While the lamp designed by this company for use on series street lighting circuits is the main piece of apparatus described, yet the other material required for such a system is given ample treatment, so that those interested may secure a good idea of the operating cost of street lighting by tungsten lamps.

CONCRETE REINFORCEMENT.—Series B-11, 1909. The Consolidated Expanded Metal Cos., 225 Fifth Ave., New York. 6 × 9 ins.; pp. 32; illustrated.

This latest catalogue of the combined expanded metal companies is devoted to an exposition of the desirability and facility of the use of expanded metal as reinforcement for the major members of a reinforced-concrete structure. Tables of sizes, examples of completed work, and methods of computation make up the contents.

STEEL CONSTRUCTION.—The Hamilton Bridge Works Co., Ltd., Hamilton, Can. 9 × 6 ins.; pp. 149; illustrated.

According to the title this company is engineer, designer or contractor for railway bridges, railway turntables, electric railway bridges, power houses and running sheds, highway bridges, buildings, roofs, steel towers and poles and structural work of all kinds. The catalog contains photographs of a large number of such structures that the company has built, for the most part in Canada.

PAINT FOR STRUCTURAL STEEL.—The Good Paint Co., 225 Dearborn St., Chicago. Paper; 3½ × 6 ins.; pp. 20; illustrated.

The "Carbonall" paints, preservatives and waterproofing compounds are briefly described, and illustrations are given of structures treated with these materials and other structures serving as "awful examples" of corrosion where these materials were not used. Particulars are given of the results of tests in which the paint was immersed in acid and exposed to sulphur fumes and atmospheric effects.

COAL TAR FOR PAVING.—F. J. Lewis Mfg. Co., Chicago. Paper; 7 × 4½ ins.; pp. 20; illustrated.

This company's Tarold is a liquid coal-tar pitch for use as a binder in macadam paving, being applied to the surface or mixed with the stone of the top course. Its purpose is to prevent both wear and dust. The illustrations show streets that have been treated with this material. Tank wagons and heaters, pouring cans, road scarifiers and the Chicago 10-ton double-cylinder steam roller are also mentioned in the pamphlet.

ELECTRICAL APPARATUS.—General Electric Co., Schenectady, N. Y. Bulletins 4649 and 4650. Paper; 8 × 10½ ins.; pp. 8 and 2; illustrated.

The first bulletin is entitled "Electrical Operation of Railroad Shops," and discusses the relative advantages and disadvantages of independent machine drives and drives of machine tools in groups.

The second bulletin is a leaflet on section switches of the quick break type; to be used in weather-proof boxes for electric railroad circuits. The capacities shown range from 200 to 1,200 amperes.

ELECTRICAL APPARATUS.—Westinghouse Electric & Mfg. Co., Pittsburg, Pa. Circulars 1160 and 1164. Paper; 7 × 10 ins.; pp. 12 and 24; illustrated.

The first of these bulletins describes the Westinghouse multiple tungsten lamps for alternating or direct current circuits. The common and meridian shapes of bulbs are described and illustrated, and there is some matter added on the use of prismatic reflectors.

The second bulletin describes a mill motor for use on polyphase alternating current circuits. These motors have squirrel-cage rotors, and are designed to run at constant speed. The principal mechanical and electrical features are pictured, and considerable space is given to starting devices and to pictures of actual installations of these motors.

FOURTH EDITION
General Specifications for Steel Roofs and Buildings
Price 25 Cents
General Description, Loads, Unit Strains, Lighting, Details of Construction, Painting, Erection.
By Charles Evan Fowler
M. Am. Soc. C. E.
The Engineering News Publishing Company

For other Proposal Advertisements see pages 51, 52, 54, 56, of Advertisements and Construction News page 162.

WROUGHT-IRON PIPE.

Clerk's Office of the City of East Orange, N. J.

Sealed proposals are invited by the City Council of the City of East Orange for supplying the water department with the following approximate quantities of guaranteed wrought-iron pipe:

Six-inch .... 5,000 feet.
Four-inch .... 2,500 feet
Two-inch .... 1,000 feet
One and one-half-inch 2,500 feet.

Proposals for all of the above material to be as per specifications to be furnished by the Water Department.

Bidders are required to state their price in writing as well as in figures.

A statement of the conditions governing the work can be seen and examined at the office of the Engineer of the Water Department in the City Hall.

Proposals must be accompanied by the agreement, in writing, of two sureties, duly qualified, or of a surety company qualified to do business in New Jersey, who shall at the time of putting in such proposals, qualify as to their responsibility in the amount of such proposal and bind themselves or itself, as the case may be, that, if the contract be awarded to the person or persons making the proposal, they will, upon its being so awarded become surety for the faithful performance of said work; and that, if the person to whom such contract be awarded omit or refuse to sign and execute such contract within ten days from the date of its being awarded, they will pay to the City of East Orange any difference between the sums to which such person would have been entitled upon completion of the contract and that sum which the City of East Orange may lay out or expend in having such work done.

The Mayor and City Council reserve the right to reject any and all bids.

No contract shall be binding or obligatory until a proper bond or bonds be given for the faithful performance of the work and be first approved, as to form, by the City Counsel, and as to sufficiency by the City Council.

All bids are to be delivered to the City Council at a meeting of the same to be held at 8 P. M., on Monday, May 24, 1909. Each proposal must be enclosed in a sealed envelope endorsed with the name of the bidder and marked "Proposal for Wrought Iron Pipe," and directed to "The Mayor and City Council of East Orange."

By order of the City Council.

LINCOLN E. ROWLEY,
City Clerk.

Dated May 11, 1909.

CATSKILL AQUEDUCT.

New York, N. Y.

Sealed bids will be received by the Board of Water Supply in Room 910, 299 Broadway, New York, until 11 A. M., June 1, 1909, for Contract 45, for the construction of about 5.3 miles of plain concrete conduit known as cut-and-cover aqueduct, 17 ft. high by 17½ ft. wide inside, about 5 miles west of Newburg, in the towns of Montgomery, Newburg and New Windsor, Orange County, New York. At the above place and time the bids will be publicly opened and read. Pamphlets containing information for bidders and pamphlets of contract drawings can be obtained at Room 1510 at the above address by depositing the sum of ten dollars ($10) for each pamphlet. For further particulars see City Record.

JOHN A. BENSEL,
President.
CHARLES N. CHADWICK,
CHARLES A. SHAW,
Commissioners of the Board of Water Supply.
J. WALDO SMITH,
Chief Engineer.
THOMAS HASSETT,
Secretary.

U. S. ENGINEER OFFICE, Duluth, Minn., May 8, 1909.—Sealed proposals for furnishing riprap at Ashland, Wis., will be received here until noon, June 8, 1909, and then publicly opened. Information on application. GRAHAM D. FITCH, Lt. Col., Engrs.

SMOKE STACK.

NOTICE TO CONTRACTORS.

Atlantic City, N. J.

Sealed proposals will be received by the Board of Water Commissioners of Atlantic City, N. J., until 2.30 P. M., May 28th, 1909, for THE CONSTRUCTION OF ONE BRICK OR REINFORCED CONCRETE SMOKE STACK at Absecon Pumping Station, in accordance with specifications on file in the office of the Water Department, City Hall.

Each bid must be accompanied by a certified check made payable to the Board of Water Commissioners of Atlantic City, N. J., for ten per cent. of bid, which check will be returned on execution of contract and filing of Bond by the successful bidder.

Should the successful bidder fail to execute the contract and file bond within ten days after notification of award his check will be forfeited and the award may be made to any other bidder.

As proper security for the performance of the contract a bond acceptable to the Board in the sum of fifteen hundred dollars ($1,500.00) will be required and this amount shall be inserted in the Contract.

Specifications will be mailed on application to the office of the Water Department.

The right is reserved to reject any or all bids.

LOUIS KUEHNLE,
RUFUS BOOYE,
JAMES PARKER,
Commissioners.
L. VAN GILDER,
Eng'r. and Superintendent.

CATSKILL AQUEDUCT.

CONTRACT NO. 20.

New York, N. Y.

Sealed bids will be received by the Board of Water Supply, in Room 910, 299 Broadway, New York, until 11 A. M., on June 3, 1909, for Contract 20 for the construction of Moodna Siphon, a deep pressure tunnel in rock, 14 ft. 2 ins. inside diameter and about 25,000 ft. long, with 7 shafts from 340 to 540 ft. in depth; and about 400 ft. of plain concrete conduit known as cut-and-cover aqueduct. The work is located in the towns of New Windsor and Cornwall, Orange County, New York. At the above place and time the bids will be publicly opened and read. Pamphlets containing information for bidders, and pamphlets of contract drawings can be obtained at Room 1510 at the above address by depositing the sum of ten dollars ($10) for each pamphlet. For further particulars see Information for Bidders.

JOHN A. BENSEL,
President.
CHARLES N. CHADWICK,
CHARLES A. SHAW,
Commissioners of the Board of Water Supply.
J. WALDO SMITH,
Chief Engineer.
THOMAS HASSETT,
Secretary.

SEWER.

OFFICE OF THE COMMISSIONERS OF SEWERAGE OF LOUISVILLE, KY.
(Incorporated.)

Sealed proposals for the construction of Crescent Ave. Sewer, Contract No. 40, of the Comprehensive System of Sewerage for the City of Louisville, Ky., will be received at the office of the Commissioners of Sewerage until 12 o'clock noon, May 28th, 1909.

The work will consist mainly of building about 2,500 feet of sewer, 8 ins. to 12 ins. in diameter in trench not over 13 ft. in depth.

Plans and specifications may be seen at the office of the Commissioners.

Sealed bids should be endorsed "Proposals for Crescent Ave. Sewer" and addressed to the Commissioners of Sewerage, Equitable Building, Louisville, Ky. Each bid must be accompanied by a certified check for at least seven per cent. (7%) of the total amount of the bid, or a "Bidder's Bond" as described in the form of proposal.

W. C. NONES,
Chairman.
CHAS. P. WEAVER, Secy. & Treas.
J. B. F. BREED, Chief Engineer.

SEWAGE PURIFICATION.

Indiana, Pa.

Sealed proposals will be received by the Borough of Indiana until 7.30 o'clock P. M., June 1st, 1909, for the construction of a sewage purification works. A certified check for $500.00 must accompany each bid. The right is reserved to reject any or all proposals.

T. J. I. PEALER,
Borough Engineer.

Situations Wanted

Civil Engineers.

CIVIL ENGINEER, draftsman, university graduate, 2 years inside and out with consulting hydraulic engineers; will go anywhere; speaks French and Spanish. Address "I. B. 19," Engineering News, New York. 19-2t

Draftsmen.

JUNIOR DRAFTSMAN—Preliminary and experimental design, structural and mechanical detail, handling machinery, sanitary improvement, automobile and electrical work. Address "G. 18," Engineering News, New York. 19-1t

Superintendents, Misc., etc.

MINING ENGINEER, just returned from Brazil, wants engagement, superintendent or manager; 8 years in Mexico; abroad preferred. Address "D. 17," Engineering News, New York. 19-2t

Situations Open

CIVIL ENGINEER, experienced in designing, estimating and superintending structural steel and masonry construction in New York. give age, experience, salary expected, reference, etc. Address "K. B. 19," Engineering News, New York. 19-2t

WANTED—Ornamental iron draftsmen; only those with experience will be considered. Address CHESAPEAKE IRON WORKS, Bayard and Severn Sts., Baltimore, Md., stating experience, salary expected, and when available. 19-3t

WANTED—Several experien[illegible] structural and ornamental drafts[illegible] Address HINKLE IRON CO., 534 [illegible] 56th St., New York. 19-1t

WANTED—Young graduate [illegible] hustler, willing to take half interes[illegible] with practical man in contracting bu[illegible]s in and around New York City. A[illegible] "L. B. 19," Engineering News, Ne[illegible] York. 19-2t

FOR SAL[illegible]

FOR SALE OR RE[illegible]

2 Good Gurley Tr[illegible]nsits
One Level and [illegible]od

Address "K. A. 19," Engine[illegible] News, New York. 19 1t

FOR SALE.

Gurley Transit
and
Gurley Y Level
Price reasonable.

Address "I. A. 19," Engineeri[illegible] News, New York.

FOR SALE.

Kelley-Springfield Five Ton
Road Roller

Perfect condition; used about eight weeks rolling turf on golf course. T. L. JAQUES, 125 East 42d St., New York City. 19-1t

FOR SALE.

Twenty-four
Steel Plate Girders

3 ft.—26 ft. to 42 ft. in length; used but short time. New and second-hand tanks of all shapes and sizes. THOS. MATTHEWS & CO., 161 Dwight St., Brooklyn, N. Y. 19-1t

WE SUPPLY
BOOKS ON ANY SUBJECT
Engineering News Book Department

CITY-WASTES DISPOSAL COMPANY
(ORGANIZED FROM THE STAFF OF THE LATE COL. GEO. E. WARING, JR.)
156 FIFTH AVENUE
(CORNER 20TH STREET)

Consulting and Contracting Engineers. Specialists in Sewerage and Sewage Disposal.

NEW YORK, Oct. 3, 1908.

Engineering News Publishing Co.
220 Broadway, New York.

Gentlemen:

I have your letter of October 2nd.

I think you put too low a value upon your own paper as an advertising medium. The two insertions have brought a flood of applications for plans. Evidently all the contractors used to such work have heard of the proposed construction at Rye.

I do not think that it will be necessary to insert the advertisement again.

Yours truly,

G. Everett Hill.